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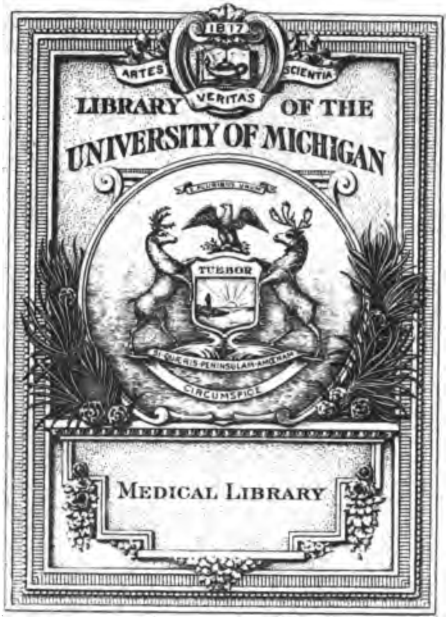

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THE

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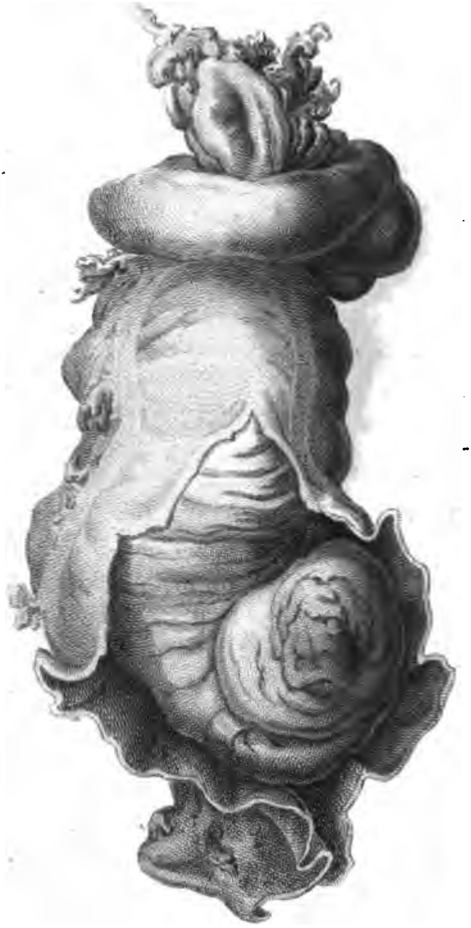

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PART I.

ORIGINAL COMMUNICATIONS.

I.

Observations on the Nature and Cause of certain Accidents which sometimes occur in Battle, and have been usually ascribed to the "Wind of a Ball." By Mr Daniel Ellis.

The accidents which form the subject of the present communication are of a kind so singular, and, in their nature, so remote from common experience, that some persons, unable to account for them on known mechanical principles, have been led altogether to doubt their occurrence; while others, who admit their existence, have resorted to explanations which appear to be irreconcileable with the ordinary operation of mechanical agents. With respect to the actual occurrence of such accidents, the following instances are related in so circumstantial a manner, and come recommended by such respectable authority, that it seems impossible to refuse them credit: and an attempt, therefore, to assimilate them to the effects produced by other known agents, and to assign a probable explanation of the mode in which they may be occasioned, will not, it is hoped, be deemed unacceptable to the readers of the Medical Journal.

"There is a singular species of accident," says Dr Blane, "to which engagements at sea are liable, called, perhaps improperly, *the wind of a ball.* In whatever manner it is accounted for, it is a fact, that a part is sometimes severely hurt, and even life destroyed, without any visible external injury or breach of parts, or any appearance of the body from whence the injury proceeded. There were two instances, in the last battle, * of a ball passing close to the stomach, and producing instant death. The one was a lieutenant of the Royal Oak, the other a common sailor of the Bedford. A man in another ship, in consequence of a ball passing close to his belly, remained without sense or motion for some time, and a large livid tumor arose on the part, but he recovered. I attended a man at the hospital at Barbadoes, who had the buttons of his trowsers carried off by a cannon-ball, without any breach in the skin. The *pubes* was lived and swelled for some time after: he suffered exquisite pain from strangury, which seemed to proceed from a paralysis of the bladder; for he voided no urine without a catheter for nearly three months, after which time he recovered. I know a brave young officer† in the army, who had his epaulette carried off by a cannon-ball at Charlestown, in consequence of which, the shoulder and adjacent parts of the neck were affected for some time. A like accident happened to a marine officer in one of the late engagements; but in neither of these was the head materially affected, nor is it so apt to be affected in this way as the stomach. I never knew death the consequence of the wind of a ball on the head; though an officer ‡ in the Sultan, at the battle of Grenada, was so stunned by a shot passing close to his temple, as to be insensible for some time, but he recovered entirely in a few hours."

"In some cases," continues Dr Blane, "the bones sustained a severe injury from accidents of this kind. Two instances of it have come to my knowledge: the one was an officer, who fell down during an engagement without any obvious cause. Upon examination, the thigh was found to be broken, and the limb was two inches shorter, which seemed to proceed from the bone being pulverized, as it were. There was no pain. The integuments were not in the least injured; so that this appears to have been what is called the "wind of a ball," but what ought, more properly, perhaps, to be termed the *brush* of a ball. In the other instance, two of the false-ribs were fractured and dislocated, with very little visible affection of the skin, though the clothes were torn. This accident proved fatal." Dr Blane adds, that " animals are affected by these accidents as well as men. A cow in the Duke was killed in one of the actions in April, by a double-headed shot passing close to the small of her back." *

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* In the West Indies, April 1782.

† The Hon. Captain Fitzroy, now Lord Southampton.

‡ Colonel Markham.

To these examples, I will add one which I lately met with in a small provincial work, in which it is stated, that, " during the blockade of Pontefract Castle, in the year 1645, by the Parliament's army, as Sir Thomas Fairfax and Colonel Forbes were standing and conversing together, a cannon-shot from the castle passed betwixt them, the *wind* of which cast them both to the ground. Colonel Forbes lost one eye by the accident, but Sir Thomas received no material injury." †

By the favour of a friend, who, at my request, obtained the particulars from an officer of rank in the East India Company's service, I am enabled to communicate the following additional cases.—At the battle of Rohilcund, in the year 1774, a cannon-shot passed between the thighs of the officer who commanded the artillery, and occasioned much blackness in both thighs, but without producing any breach in the skin. A similar occurrence took place in the year 1781, in the retreat of the army from the Ghauts, where a shot passed between the thighs of an officer of the Bombay establishment, and produced effects similar to those described above. Both these officers are still living in England, and have risen to high stations in the army. At the siege of Bassain, near Bombay, in the year 1780, a sepoy, who was placed in the trenches to look out for shot, was too late in *dipping*; and a shot, in consequence, knocked off his turban into the trench behind him. The sepoy jumped down to pick it up. A surgeon, who happened to be near the spot, immediately went to him; but found, on examination, that the head was not in the least touched by the ball. From the state of the pulse, however, the surgeon deemed it necessary to send the man to the hospital; and though no external injury could be discovered, the man died in less than 48 hours after the accident. The officer who communicated these facts, and who was in the trenches at the time, thinks he heard it said that the surgeon,

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* Obs. on the Diseases of Seamen, p. 575, 3d ed.

† Hargrove's History of Knaresborough, p. 185, 5th ed.

(Boyd), examined the sepoy's head after death, and found an effusion of blood.

The same friend has informed me that a gentleman, now resident in the Highlands of Scotland, while serving as an officer in the trenches at the siege of Bergen-op-Zoom, and in the act of stooping to assist a soldier who had fallen, lost instantaneously the sight of one eye, and gradually that of the other, in consequence of a cannon-ball passing across his face, but without touching it, and lodging in the opposite side of the trench.

By another friend, who served as an officer at the siege of Seringapatam, I have been informed that a lieutenant of the 2d battalion of Bengal Volunteers, when standing in the trenches before that place, was struck down by a cannon-ball passing close to his thigh, which was rendered perfectly black; but there was no breach of the external skin, nor other visible sign of injury. In another instance, a ball passed close to the face of another officer of the same battalion, which struck him down, and caused a blackness of the side of the face; but produced no other sensible injury. The same gentleman, however, informs me, that Captain M. of the Bengal Native Infantry, while serving in the army with Lord Lake in the west of India, lost the sight of both eyes by the passage of a cannon-ball across his face, which, however, inflicted no external mark of injury. To these instances may be added that of Colonel M., of the Bengal Artillery, who, at the siege of Seringapatam, while standing in one of the batteries, and looking through a telescope at the enemy's works, at the distance of between 400 and 500 yards, was struck by a cannon-ball, which broke his fore-arm, and passed across his breast, but without touching it. His arm was amputated above the elbow, and nothing unfavourable occurred in the operation. He died, however, in a few days, not, as was conceived, from the effects of the injury done to the arm, but from the "wind of the ball," which, in the opinion of the surgeon, acted on his chest, which was rendered perfectly black, although the external skin remained quite sound. All these instances are represented to have created much discussion among the medical officers of the Indian army; and were generally considered by them to be produced by what has been called the "wind of a ball."

I have been anxious to collect examples of these accidents from different and distant sources, since they afford the best means of counteracting that incredulity with which, I know, that most persons are, at first, disposed to regard them; but, after the detail which has now been given, I cannot but think, with Dr Blane, that the facts, which establish their occurrence, "do not admit of doubt." The *manner*, however, in which the effects are produced is, he adds, matter of conjecture; but, perhaps, it is owing to the compression and tremor of the air, in consequence of its resistance to the motion of the ball. From the circumstance of the bones being sometimes broken, mere *proximity*, according to him, is not sufficient to produce the effect; there must be some sort of *contact*; and perhaps, he adds, it is explicable as follows: "It has been ascertained that all balls and bullets, except those from rifled pieces, have a rotatory motion in their flight. It is evident, that this motion, on one side of the ball, will coincide with the direction of its flight, and the other will be in the opposite direction. Now, if the latter side should come in contact with any part of the body, it is conceivable that, in place of carrying it away, it would roll over it, as it were, and only make a contusion." *

Granting, however, that the air, on these occasions, suffers compression and tremor, or that the ball itself acquires a rotatory motion in its flight, yet many of the effects described by Dr Blane, cannot, with any probability, be attributed to the operation of these causes. No force, for example, impressed upon the air, nor any motion communicated to a ball, can enable these agents, in a mechanical manner, to impair vision, paralyze the bladder, break the bones, and even destroy life, without inflicting any "visible external injury, or breach of the parts." Some sort of contact, indeed, Dr Blane declares to be necessary; but, surrounded as the thigh-bone is with integumental and muscular substance, how can that contact, by which it is "pulverized," take place, "without the integuments being in the least injured?" The ordinary effect of a canon-ball, when it strikes the body at a very considerable distance, is to wound and mutilate it in a greater or less degree; but, in most of the examples above given, although the distance seldom exceeded a few hundred yards, no external wound was made. Even *spent* musket-balls, when incapable of hurting the bones, often penetrate the soft parts, and pursue extraordinary courses in them, in consequence of being resisted and turned aside by the bones. In some of the cases, however, which have just been quoted, the bones alone suffered; while the soft parts, which enveloped them, continued sound. These facts, in common with many others, seem clearly to prove, that it is *not* to the *contact*, but to the

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* Diseases of Seamen, loc. cit.

proximity, of the ball, that the violent effects, described above, are truly to be referred. To me, indeed, these accidents appear altogether different from those produced by the operation of ordinary mechanical agents; and bear, in all their circumstances, a much nearer resemblance to the effects which, in many cases, succeed to the action of *atmospheric electricity*. In support of this opinion, I beg leave to adduce the following examples.

A man was suddenly attacked with failure of sight, and a sense of fullness and uneasiness in the stomach, which he first felt after being exposed to a flash of lightning; his sight gradually declined, and, although no alteration occurred in the state of his pulse or skin, he continued to grow worse, and died on the fifth day. On opening the body, all the *viscera*, except the stomach, were apparently sound; but that organ seemed to be in a mortified state. This state, it is added, was doubtless occasioned by the flash of lightning, and yet no mark was visible on the teguments of the body, through which the electric matter must have passed. * The loss of sense and motion, and the formation of livid marks, which have been ascribed to the "wind of a ball," are likewise common consequences of the operation of lightning. In one fatal case, recorded in the Philosophical Transactions, the electric matter entered the body under the left ear, and passed down the back, which it rendered as "black as ink." † In a second instance, sensation and circulation seemed to be suspended by a stroke of lightning, and it left a black mark on the thigh, which disappeared in a few days, and sensation also returned. ‡ In a third case, a man was struck dead by lightning, and his body was rendered totally black: his clothes were torn, but no particular flesh wound was made. ‖ The circumstances of the buttons being torn from the clothes, and the epaulettes carried away by the "wind of a ball," are likewise analogous to the effects sometimes produced by lightning; for, in the foregoing cases, the metallic substances, about the persons struck, was, in some instances fused: in others, it was torn from the clothes; and in others it remained uninjured. Lastly, the fracture of the bones, without injury to the skin, is also affected by the agency of lightning; Thus a person at Troyes was killed by lightning, and his bones were found broken, without any appearance of external injury. Muschenbröck relates a similar fact that came within his own knowledge. During a thunder-storm, the lightning struck a flock of sheep, which were all instantly killed, and their bones broken into minute pieces and dispersed through the flesh, without any external lesion.* Extraordinary as these facts may seem, they will perhaps appear less wonderful to those who have experienced a smart shock from a common electrical machine, in which, although no effect is produced on the skin, a momentary sensation of fracture is communicated by the bones, arising, no doubt, from their imperfectly conducting power; while the soft parts, by yielding a ready transit to the subtile matter, impart no such feeling.

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* Simmons's Med. Facts, vol. viii.

† Phil. Trans. An. 1772, p. 135.

‡ Ib. 1773, p. 234.

‖ Ib. 1781, p. 43.

The foregoing facts sufficiently prove, that all the peculiar effects, usually ascribed to the "wind of a ball," are likewise occasioned by the varied operation of atmospheric electricity; for, in both cases, persons are suddenly struck down with loss of sense and motion, vision is impaired or irreparably injured, the body is discoloured, the nerves paralyzed, the bones broken, and even life destroyed, "without any visible external injury or breach of parts, or any appearance of the body from whence the injury proceeded." The fact, also, of metallic matter being torn from the clothes, without the ball having actually touched them, is a circumstance so truly electrical, as to be almost of itself sufficient to identify the nature of the agents by which such effects are produced. Indeed, it may be safely asserted, that many of the effects above mentioned, both in their nature and in the mode of their occurrence, are such as cannot be occasioned by any ordinary mechanical agent; and must therefore be attributed to the operation of electricity, or of some subtile matter, possessed of similar powers. Are there then sufficient reasons for believing that electric, or other similar matter, exists in the air, and may be accumulated or developed, by the motion of a cannon-ball, in a quantity adequate to produce the extraordinary effects ascribed to the "wind of a ball?"

It is known that electric matter is abundantly diffused through the atmosphere, and, as we have seen, is often accumulated in a quantity sufficient to produce the most violent effects; but it cannot, I think, be reasonably maintained, that a cannon-ball, in its flight through so small a portion of air, is able, by friction or other means, to collect, from this source alone, electricity sufficient to produce the accidents ascribed to the "wind of a ball."

Besides, however, yielding the electricity which may be diffused through it, many facts show that a subtile matter, possessing electrical properties, may be developed from the air by the operations of *chemical* action. Chemists have amply proved, that all permanently elastic fluids owe their gaseous form to the presence of caloric in a *latent* state; and that, when the elasticity of the gas is reduced or overcome, its latent caloric is more or less set free. The oxygenous portion of our atmosphere contains a large quantity of this latent heat, and when, in combustion or other chemical operations, this gas loses its elasticity, its caloric is developed, and exhibited in a *sensible* state.

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* Robertson's Hist. of the Atmosphere, vol. ii. p. 309.

But this subtile or calorific matter, which oxygen gas is thus capable of affording, may be made to exhibit the properties of the electric fluid; for Dr Wollaston found that this gas contributed to the production of electricity, by entering into combination with the amalgam of the rubber of the machine; and that, when the machine was duly insulated, no electricity was developed, either if the oxygen gas was withdrawn, or if an amalgam, incapable of oxidation, was employed: *—facts which seem clearly to prove, that the air contains, in a latent state, electric, or other similar matter; and that it yields this matter, in a sensible state, when, in these instances, it enters into *chemical combination.*

Farther, a subtile matter, resembling in its properties the electric fluid, is developed from the air, when its elasticity is reduced by *mechanical* means. By simply doubling the ordinary density of the air, Mr Dalton found that caloric was disengaged sufficient to raise the temperature several degrees; † and in the greater and more rapid condensation to which the air is submitted in an air gun, a flash of light is sometimes visible, as Mr Fletcher observed. ‡ M. Mollet farther remarked, that combustible substances were readily inflamed in a condensing syringe, by a few strokes of the piston; § and in subsequent experiments of M. Biot, oxygen and hydrogen gases, mingled in the proportions proper to form water, afforded, by their rapid condensation, subtile matter sufficient to inflame them, in the same manner, and with the same phenomena, as the electric spark operates. ‖ Without contending, therefore, for the absolute identity of caloric and the electric fluid, these facts must be allowed to prove that a subtile matter, exhibiting the appearances and possessing the distinguishing properties of that fluid, exists in gaseous bodies; and that it may be developed by reducing their elasticity, whether this be accomplished by chemical or mechanical means. Is it then probable that a cannon-ball, in its flight through the air, acts upon it in such a manner as to develop and accumulate a quantity of this subtile matter?

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* Phil. Trans. 1801, p. 433.

† Manchester Memoirs, vol. v.

‡ Nicholson's Journal, vol. x. p. 280.

§ Philosophical Magazine, xiv. p. 263.

‖ Hauy's Traité de Phys. tom. ii. p. 253.

By those philosophers, who have particularly directed their attention to the motion of projectiles, we are informed, that elastic fluids, as that of the atmosphere, do not quickly fill up the space quitted by the body in motion, but condense more and more before it the quicker it moves. From the experiments of Dr Hutton, it appears, that a cannon-ball, of about two inches in diameter, moving with the velocity of 1000 feet per second, encounters a resistance from the air equal to 350 ounces; while the resistance opposed to the same ball, when moving with a double velocity, is equal to 1569 ounces, or more than four times as great.* By this increasing resistance, and consequent condensation of the air, its latent caloric will necessarily be developed; and as this subtile matter has been shown, in so many of its properties, to resemble the electric fluid, it may, like it, be supposed to accumulate in the ball, and be carried forward with it, either till the velocity of the ball so much diminish as to permit its gradual diffusion, or till, like the electric fluid, it be suddenly drawn off, in the passage of the ball, by some less highly-charged conducting substance. In the latter event, it may, according to its intensity, produce those accidents already related; and hence the effects, usually ascribed to the *wind of a ball*, may be considered as, in their nature, truly *electrical*, and as really caused by the *agency of the subtile matter* developed by the *condensation of the air* during the projectile's rapid motion.

I may add, that those who have witnessed the effects of the calorific matter, developed by the condensation of a few cubic inches of air, in a common syringe, will readily conceive what may be the operation of a 24 pounder, the section of whose great circle is about 25 square inches, and which, therefore, in a flight of 300 yards, or about *point-blanc* range, must, in half a second of time, act upon and displace 156 cubic feet of air.

But this accumulation of subtile matter, which has been thus supposed to attend the rapid motion of a ball, can, in consistency with the principles above stated, occur only in the earlier period of its flight; since it then not only acts on a greater quantity of air in a shorter time, but this air, by its greater resistance then, also suffers greater condensation. At very small distances, also, it is probable that, although the *initial* velocity of the ball be so great, yet no considerable accumulation of subtile matter will take place, because sufficient space will not have been traversed to enable the air to afford it; while, at very great distances, as the velocity declines, the resistance diminishes, and the air will then no longer be condensed in a degree sufficient to yield its latent calorific matter. It is possible also that, in a very moist atmosphere, no great accumulation will arise, because the conducting and dispersing property of the air, may then nearly or quite equal the condensing and accumulating power of the ball; while, in a very dry atmosphere, less subtile matter will be carried off, and more, therefore, will remain in the ball; and these considerations may, perhaps, explain the apparent fact of the more frequent occurrence of such accidents in the East and West Indies, than in Europe. Lastly, We may add, that most of the accidents, ascribed to the "wind of a ball," seem to occur in sea-engagements, or in the operation of sieges, in both of which the contending parties fight often within *point-blanc* range, and the ball proceeds nearly in a horizontal course; but, in land battles, from the greater distance at which the artillery is usually served, and the consequent elevation given to the piece, the ball is at once carried out of the horizontal path, and does not again come near its object, until its velocity is so much spent as to disable it from producing on the air those effects which attend its more rapid motion.

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* Hutton's Phil. Dict. vol. ii. p. 365.

I shall conclude by observing, that the opinion which I have thus ventured to bring forward, respecting the *electrical* nature of the effect sometimes produced by the rapid motion of a ball, might, I conceive, without difficulty, be submitted to actual experiment; and should these observations fall under the notice of any of the ingenious and scientific persons connected with the ordnance department, who have frequent opportunities, and may desire to make it, to such persons the means of execution, and the precautions required, will, after what has been stated, readily suggest themselves.

Edinburgh, 20th November 1811.

II.

History of a Case of Impracticable Labour, in which the Cæsarean Operation was performed. By GEORGE KELLIE, M. D.

LATE on Wednesday evening, the 3d of July 1811, I was requested by Mrs M'Laren, midwife in Leith, to visit Mrs M. who had been in labour under her care since an early hour of the same morning.

She informed me that the waters had come off at the commencement of labour; that although the pains had continued with great regularity and smartness, she was not sensible that the presenting part, which she believed to be the breech, had made any progress; and that, having reason to suspect an uncommon narrowness of the pelvis, she had judged my assistance necessary.

On examination, I found the outlet of the pelvis, though diminished, sufficiently open to admit the introduction of my hand, which immediately encountered a round and resisting tumor, which, for a moment, imposed upon me for the head of the child, advanced within the cavity of the pelvis, but which I soon discovered to be the preternatural projection of the sacrum and lumbar vertebrae. Coursing my fingers beyond this, I, with considerable difficulty, was enabled to reach the os uteri towards the left side, and to feel with the point of one finger the presenting part of the child, which I concluded to be one of the hips, above the brim of the pelvis. Passing then my finger in the direction between the acetabulum and the projection of the sacrum, I found the space so much confined, that, according to my judgment, it could little, if at all, exceed two inches: on the right side it seemed even less than this measurement; and pressing my finger forward towards the pubes, I found that it could barely be admitted into a space at the symphysis, formed by the approximation of the two bones.

On inquiring into the previous history of this unfortunate woman, I learned the following particulars from herself, and Mrs M'Laren who had attended her on former occasions. Her age is twenty seven years. She has been married ten years, and has borne four living children, the last a little more than three years ago. Between five and six years back, being pregnant of her third child, and indeed for some time previous to this, she suffered much from what was deemed a rheumatism of the loins and hips; she walked with pain, and her gait was lame and unsteady.

She went, however, her full time, and had an easy and natural labour; but after recovery, her lameness became so great, that she could hardly put a foot to the ground.

Early in May 1808, she was again delivered by Mrs M'Laren of a living child, after a labour which, though natural, was more severe and protracted than usual: And the observations made by Mrs M'Laren on this occasion, led her to conclude that the pelvis had already become somewhat mishapen, and to dread more formidable difficulties in the event of a future labour. From this time to the present, or for upwards of three years, Mrs M. has been confined entirely to bed, unable even to turn herself from one side to another, or to raise herself from her pillow without being assisted. Her lower extremities have for some time been quite paralytic. She is greatly emaciated, and her general health is much impaired by continued suffering, and inevitable confinement to bed. Yet, in this deplorable condition, she again became pregnant, and without accidents she has attained her full time. At this my first visit, the labour-pains had considerably relaxed; they were feeble, and the intervals of ease long; she was neither much heated nor fatigued, and her pulse, which did not exceed a hundred, tolerably good. The opinion I then gave to the midwife was, that the deformity of the pelvis was so great, that natural and unassisted labour was utterly impossible; that it was even doubtful if the child could by any means be extracted *per vias naturales;* that, as yet, however, the os uteri was but partially dilated, the presenting part still high above the brim of the pelvis, and barely cognizable; and that, as the patient seemed little fatigued or exhausted, it was most adviseable to wait a little, till, by a continuance of more effectual labour, the os uteri should become wider and more yielding, and the presentation should come more within reach, when, if practicable, I might endeavour to deliver her by the crotchet. Meanwhile, I recommended that the patient's strength should be economized and supported by some light nourishment, by a soothing and encouraging deportment, and by a free ventilation of her small apartment. The bladder and rectum had been lately emptied. I left her, therefore, for the present, requesting the midwife to call me whenever she should deem it necessary, or when, from the state of the labour, she should think my assistance could be useful, consistently with the opinion given of the case.

When I called next morning, I learned that, with occasional intervals of ease, the labour pains had been regular, frequent, and urgent. Yet, on examination, so far from finding that any advantage had been gained, or progress made, since I had left her, I could not now bring my finger to touch any presenting part, and I was more convinced that the deformity was such as to render delivery by the pelvis impracticable. The patient was now hot, thirsty, and restless; her pulse was beating 120, and she was complaining of fatigue, with sickness and vomiting. Besides Mrs M'Laren, originally in attendance, I found in the room Mrs Craig, another intelligent and respectable midwife; and I explained to them, and to the husband, the view I entertained of the state and event of this most distressing case; all the circumstances of which opposed the possibility of delivery by any other means than the Cæsarean section, by which indeed, the child, if yet alive, might be saved, though there seemed no likelihood of the woman surviving an operation which had hitherto proved in this country so fatal in its issue, even when performed under far more auspicious signs. Still, however, it afforded the only chance which she had; and undelivered, both mother and child must inevitably perish.

With this view of the case before them, I begged them to deliberate with the patient's friends, and then to state the circumstances to herself; and if the chances held out by the operation were accepted, to add, that I should provide myself with the necessary assistance, and be ready to perform it; or, if farther opinion, advice, or consultation was desired, that it might be had without loss of time.

The result was, that the patient and her friends, towards evening, became willing to submit to any measures, however doubtful, which afforded a chance of saving one or both lives. As was desired by them, Dr Thomas Anderson now very obligingly visited her along with me, and after a deliberate examination, declared his opinion also to be, that delivery, *per vias naturales*, was impracticable.

With an affecting resignation on the part of the patient and her friends, the operation was now fully agreed to; and between nine and ten of the evening, assisted by Drs Thomas and Charles Anderson, Charles and Bain Cheyne, I proceeded to perform it.

The line of incision was on the edge of the left rectus muscle, extending from two inches and a half above the navel, to four below it. The integuments being thus divided to the extent of six inches and a half, I opened the peritonæum at the upper extremity of the incision, and by means of a probe-pointed bistoury, guarded by my finger, slit this membrane open to the same extent: in the same manner I divided the uterus, and then with my fingers ruptured the membranes. The shoulders and neck of the child were exposed, and an elbow and arm immediately protruded; the presentation towards the pelvis was the breech. I extracted the child, after liberating the head from the upper part of the uterus; and to my great satisfaction, the infant, a boy of full size, was born alive. The placenta was instantly and easily delivered; the uterus contracted vigorously round my hand; and no hæmorrhage occurred during the whole operation, either to embarrass me, or to affect the patient. The only embarrassing occurrence was a considerable protrusion of the intestines, which immediately followed the subsidence of the womb;—and we remarked that these were already affected with inflammation.

Nothing else opposed for a moment the necessary dressings. The integuments were soon, however, united by the interrupted suture, and farther secured in apposition with straps of adhesive plaster. Compresses and bandage were then applied, so as firmly and equally to compress and sustain the parietes of the abdomen.

The patient sustained the operation with great fortitude. Nor did she, after it, appear more remarkably low and fatigued than before. Her pulse was tolerably firm, and did not exceed 120. The stomach however was more affected with severe efforts to vomit, so frequently renewed, that nothing for a while could be brought to remain. An opiate administered by the mouth being also rejected, three grains of opium were pushed up the rectum: and in no long time the stomach became more settled. When I left her about midnight, she had retained several spoonfuls of panada, and seemed tolerably easy and composed.

The child who some time after his birth appeared rather low, and somewhat oppressed in his breathing, was by this time recovered, and dressed. He had purged, and passed urine; and when I took my leave, he was sucking very heartily, a neighbour who had been delivered a fortnight ago having proffered him her breast.

5th July, 9 A. M.—She has had some quiet sleep, and has upon the whole been much easier and composed than was expected. The stomach has given her less disturbance; and she has taken and retained a cup of tea and a piece of toasted bread for breakfast. She has urined once; and there is some appearance of lochial discharge *per vaginam*. She is perfectly composed, and says she has suffered nothing but a few occasional pains, which she considered as after-pains. She complains of nausea, and thirst, which she is afraid to indulge on account of the disposition to retching. The skin does not feel very hot, nor is the tongue arid or foul; but her cheeks have a flushed and hectic circumscription, and the pulse is sharp, and about 130.

With regard to the child, I learnt that his breathing had become more oppressed; that he seemed low and sick, and had lately refused the breast. I found him far from well; and as he had not again purged, and by his manner of crying seemed pained in his bowels, the midwife had just given him a carminative injection. I ordered his belly to be fomented, and that a tea-spoonful of castor-oil should be given. 12 o'clock.—When I called at noon, I found Mrs M. considerably worse than in the morning. She was vomiting almost incessantly, and her stomach could retain nothing. The pulse was not more frequent, but feebler than in the morning. She complained of faintness and languor, but not of pain. Neither did the belly feel more tense, and gentle pressure on the abdomen occasioned her no distress. I prescribed a mixture of cinnamon water, with spt. ammoniæ and laudanum, to be given in doses of a spoonful every hour till some relief was obtained.

The child too seemed now in great danger. He was low and uneasy; his breathing continued oppressed, and he had suffered two or three convulsive fits.

2 P. M.—The child expired about half an hour ago. The mother seems sinking fast. Her stomach continues to reject every thing swallowed. She is perfectly calm aud sensible. The features however are more collapsed, the countenance is anxious, and the pulse is more frequent and more feeble; but she complains not of pain. The face and hands are bedewed with a clammy sweat; she is restless, and likes to have her posture changed. Her head is at present raised and reclining on the breast of an attendant, and she tries to assist in supporting herself with one hand. The picture of approaching dissolution need not here be dwelt upon. She expired a little after 5 o'clock this evening.

Dissection.—The abdomen appeared swollen and tense, but not discoloured. The sides of the wound were in exact apposition, and externally no discharge or exudation could be perceived. Internally, there was a small circumscribed effusion of coagulated lymph and blood between the peritonæum and subjacent bowels immediately under and around the external incision. The intestines were vascular, and pretty generally red and suffused from inflammation. There was a trifling effusion of bloody serum into the abdominal cavity. The uterus did not seem larger than what is natural at the same period after delivery. The sides of the incision were tumid, livid, and not in contact, but separated for half an inch. Its cavity contained no coagulum The decidua was livid, easily rubbed off, and, with the lochia, extremely fetid. But the most interesting object of this dissection was to secure the pelvis, and to ascertain the nature and extent of the deformity which had opposed delivery by the natural passage, and authorized the section of the womb.

Description of the Pelvis.—The last lumbar vertebra, and the upper portion or body of the sacrum, are protruded forwards and downwards into the cavity of the pelvis; and a part even of the fourth lumbar vertebra has fallen below the plane of the brim. The alæ of the ilia are folded or bent in such a way that each bone has the appearance of being formed of two planes meeting at right angles: The inferior planes, or portions of the bones, with the acetabula, fall inwards upon the pelvis: And immediately over the thyroidal foramina, the bodies of the ossa pubis are dissolved or fractured, and bent in such way that the iliac portions are also carried inwards with the ossa ilii upon the cavity of the pelvis, while the symphysis pubis is made to project outwards by the parallel approximation of the anterior halves of the bones. Thus, by the projection of the two lower lumbar vertebræ and sacrum, by the folding of the ossa ilii, and the fracture of the ossa pubis, the brim of the pelvis has become remarkably distorted, and lessened in all its dimensions.

On the left side, the greatest linear distance between the ilium and spine is just one inch and two-tenths, stretching from above the acetabulum to the lower part of the fourth lumbar vertebra; and on the right side, the space does not exceed eight-tenths of an inch. A line drawn across the fractured parts of the ossa pubis, exactly over the thyroidal foramina, measures eight-tenths of an inch, and marks the approximation of the bodies of the two bones: And the distance between the middle of this line and the lumbar vertebra, which lies immediately behind it, is just one inch and two-tenths.

The largest transverse diameters of this pelvis are lines extending from the fractures of the pubes to the opposite sacro-iliac symphyses; and are found to be on the right side four inches, and on the left four inches and two-tenths of an inch.

The distortion of the outlet of the pelvis is no less remarkable than that of the brim, though its dimensions are not so confined.

The rami of the pubes and ischia have been softened and thinned by absorption of osseous matter, and are much bent and distorted. The sacrum appears doubled upon itself, the lower half being suddenly inflected upwards, so that, with the coccyx, it fairly enters the pelvis, and becomes almost parallel to the superior part of the sacrum, at its junction with the inferior lumbar vertebra. The point of the coccyx is indeed exactly opposite to the cartilage which inter-articulates the sacrum and last vertebra of the loins; and the linear distance between the coccygial extremity; and this inter-articular cartilage to which it is opposed, is somewhat less than an inch.

A line drawn from the point of the coccyx to the symphysis pubis measures exactly three inches and four-tenths; but if carried no farther than the line stretching from the fracture of the pubes of one side to that of the other, and which line in truth completes the brim of the contracted pelvis, it does not exceed the length of two inches two-tenths. From the spinous process of the ischium of the right side to the point of the coccyx, the distance is two inches; and from the spinous process of the left ischium, to the same point, just one inch. The space between the tuberosities of the ischia is two inches seven-tenths; and between the spinous processes three inches three-tenths.

The bones in general, and more especially the alæ ilii, the ossa pubis, and the rami of the ischia, were rough and somewhat flexible; and the different pieces of which the pelvis is composed were loosely articulated, and to a certain extent moveable on each other. With the assistance of the annexed engraving, and diagram, the description of the pelvis, and all its peculiarities, cannot be misunderstood. The original I have placed in the collection of Dr James Hamilton, the distinguished professor of midwifery in this university.

I have few observations to add to this melancholy detail. One woman only has in this country had the good fortune to survive the Cæsarean operation, and yet we have histories of eighteen cases where the operation, (by which indeed ten children have been saved) has been performed in Great Britain. It is an operation, therefore, not of choice, but of the greatest necessity, to which we always resort with the most painful reluctance; an operation which we never can bring ourselves to think of, without a thorough conviction, that, unless risked, two lives must inevitably be lost, while, by means of it, there is a possibility that both may be saved, and a very great probability that one shall be rescued from destruction. I think it best to state our own experience of the fatal tendency of this operation to the mother, although I am not ignorant, that on the continent many are said to have survived it, and that of 231 cases of this operation, to be found in the records of medicine, 139 have been stated to have proved successful. In estimating the hazard of the case, we must not, however, confide in this great proportion of recoveries. The inherent dangers of the operation must always be greatly heightened by the circumstances which have rendered it necessary; and the delay and reluctance of British accoucheurs, though it may account in some degree for their want of success, have perhaps been upon the whole less destructive than the rashness and resolution of those of other countries. The surgeon of the village of Attichi, near Compeigne, quoted by Baudeloque, had no great cause to glory in the recovery of a woman on whom he had performed the operation, when, in a subsequent labour, she had a very natural delivery. And when we read of a woman laid upon the table in fearful expectation of this horrid operation, expelling her child by the natural pains, while the surgeons were preparing for cutting up the womb, we are tolerably well assured, that some of these successful operations were cruel and unnecessary. The necessity of the Cæsarean operation implies such a deformity of the pelvis, as must render delivery through it physically impossible; the deformity is very commonly the consequence of a formidable and incurable disease, mollities ossium; and as it is not possible during life to determine with perfect accuracy the amount of this deformity, the operation has in this country generally, and upon the whole prudently, been delayed, till, by the continued, and unavailing efforts of nature, the impracticability of delivery has been collaterally established; though, unhappily, by this delay, new dangers are added to those naturally inherent in the operation.

All the circumstances rendered our operation from the first a most hopeless one. The deformity was extreme; and the patient not only laboured under mollities ossium, but her health and strength had been impaired by a painful confinement of three years to bed. Happily for humanity, cases requiring the Cæsarean section, are of rare occurrence; and the necessity of the operation is confined within the narrowest limits. The dimensions of the pelvis may be greatly contracted by disease and deformity; but if the space from pubes to sacrum, or on either side, do not measure less than two inches, there can be no great difficulty in delivering the mother by the operation of embryulcio. Indeed, according to Dr Osborne, the Cæsarean operation can seldom if ever be necessary; for he contends, that if there be a space of an inch and a half between the pubes and sacrum, or on either side, the head may be broken down, so as to admit of delivery. Whatever decision may be given on this position, it has never been asserted that delivery is practicable, if the pelvis be in all parts under this dimension. And that such a case may occur, is demonstrated by the pelvis of our patient; the greatest conjugate diameter of which does not exceed one inch and two-tenths. Even had the deformity been less than this, I conceive that the circumstance of the breech presenting, would have increased the difficulty of delivery. It seems to me, that a case just admitting delivery, by breaking down the cranium, and extracting the basis of the skull laterally with the crotchet in Dr Os-

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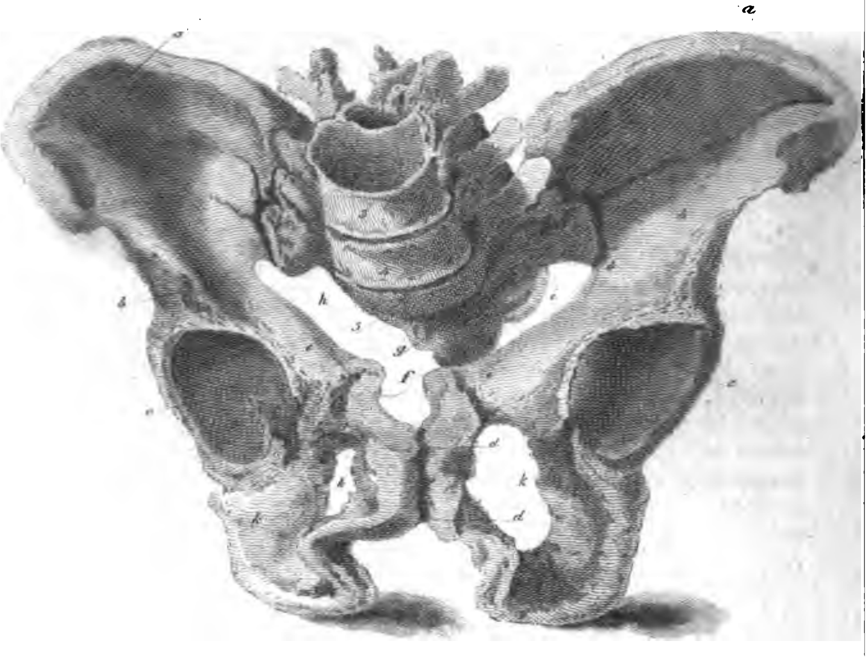
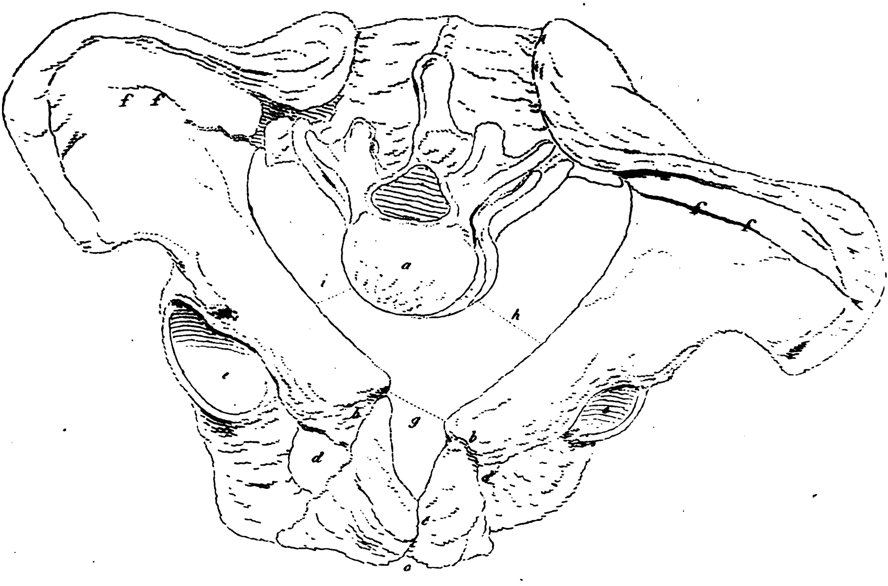
Dr. Kellie's Case.





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borne's manner, would constitute one of impracticable labour, if the breech or body, instead of the head of the child, presented at the brim of such a pelvis.

The case which has been here recorded will not render this operation more popular, though it establishes one in which no other resource is left, and in which I must think we are morally bound to submit, amidst all the hazards of the operation, to the hope, however small, which is left of preserving life.

"Every woman, for whom the Cæsarean operation can be proposed to be performed, will probably die: and should any one survive, her recovery might rather be considered as an escape, than as a recovery to be expected, though there is always a probable chance of saving the life of a child. But as such an escape may happen in any case in which the operation might be performed, we may and ought to esteem every case which can come before us, as the individual case in which a happy event is to be expected." *

Explanation of the Plate.

Fig. 1. Intended to convey a general notion of the figure of the distorted pelvis.

3, 4, 5, The 3d, 4th, and 5th lumbar vertebræ.
a, Alæ ilii.
b, *b*, *b*, The anterior portion of the ilia bent at right angles to the posterior, and, with the acetabular parts of the pubes, carried inwards upon the pelvis.
c, *c*, Acetabula ilii.
d, Symphysis pubis projected forwards.
e, *e*, The fractures of the pubes over the acetabula.
f, The narrow space left between the ossa pubis, and formed by the projection of the symphysis.
g, Sacrum.
h, *i*, The cavity of the pelvis, and dimensions of its brim.
k, Thyroidal foramina.

Fig. 2. Diagram representing the shape and dimensions of the brim of the pelvis.

a, Body of fifth lumbar vertebra.
b, *b*, The fractures of the pubes.
c, Symphysis pubis.
d, *d*, Thyroidal foramina.
e, *e*, Acetabula ilii.
f, *f*, The folds of the ilia.

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* Denman's Introduction to Midwifery.

g, Line drawn across the fractures of the pubes, and completing the brim of the pelvis.

h, *i*, Lines representing the largest conjugate diameters of the brim of the pelvis, and measuring on the left side one inch and two-tenths; on the right eight-tenths of an inch.

Leith, Nov. 1811.

III.

Case of Diabetes treated by Venesection. By JAMES MURRAY, Surgeon, Belfast.

OCTOBER 11. 1811.—Mr D. Murray, æt. 72, complains of insatiable thirst, obstinate constipation of the bowels, loss of appetite, great debility, frequent micturition, with a large increase in the quantity of urine, which he thinks amounts to 10 quarts in the 24 hours; he is much emaciated, troubled with vertigo and dimness of sight, with a profusion of vivid colours and various figures dancing before his eyes. His skin is soft and natural, tongue parched and loaded, gums tender, eyes and ciliae red and painful, pulse 60 and weak, spirits much depressed; he feels a hot pain often in his stomach, with a sense of weight and straitness across the breast, and an uneasy sensation in the lumbar region. The cause of his illness he attributes to anxiety and fatigue, which induced costiveness; and, about four months ago, he observed the great increase of urine after having drank spirits rather freely.

During his bad state of health, he has taken large dozes of castor-oil, salts, laxative pills, and several other medicines, without any benefit; his drink for some time was lime-water.

℞ Extract. colocyn. ʒij.
Ol. anisi, q. s. ft. pil. xxx.

Sig. two to be taken three times a day.

℞ Acid. muriat. ℥j.

Sig. a quart of water to be sharply acidulated with some of the drops for common drink.

12th.—Had one loose stool this morning after the pills, but finds himself no better; drank in the last 24 hours four quarts of acidulated drink, two cups of tea last night, two this morning, and a bottle of soda-water; urine during the same period, 12 quarts of a pale yellow colour: he would wish to drink much more, but abstains as much as possible, thinking that the thirst and heat of his mouth constitute his disease, and that the large quantity of urine is owing to the necessity of drinking so much. His eyes are very red this morning, and he mentions that he has often spit blood since he took the pain in his breast, and that he often passes blood in his urine, so as to tinge it of a red colour; pulse now 65 and weak, tongue white.

Nineteen ounces of blood were taken from his arm in a full stream, and the patient and by-standers were astonished to observe the artery at the cubit beginning to beat with great force, and the veins on the arms and hands filling up; he had been often bled when young, and always fainted; but he feels now stronger than for 12 months past. After bleeding he walked to his lodging, a distance of half a mile, with unusual firmness and vigour.

13th.—Feels easier and less giddy, observes few of the coloured figures, his eyes are quite clear and spirits elevated; drank since yesterday at this time four quarts, tea included, and ate of bread and beef about 10 ounces, and half a pint of panada for supper, which he is desired to omit in future; pulse 74 and firm, tongue and mouth rather softer and cleaner than yesterday, had three motions of his bowels, but is not griped by the pills.

17th.—Slept well last night, drank during the night only one pint of the acidulated water, though he could not want less than two quarts in the preceding nights; in the last 24 hours he passed only nine pints of urine, eight ounces of which evaporated gave seven drams of extract, which was very sweet; the first cup of blood drawn the day before yesterday did not exhibit any inflammatory coat, but the last one showed it in a slight degree.

Owing to the relief experienced after the first blood-letting, 14 ounces were now taken in a full jet from the left arm; pulse before bleeding 70, after it 68 and full; he now feels light, and says the drunkenness, as he expresses it, has entirely left his head.

15th.—Thirst and all the troublesome symptoms greatly abated; but he still suffers from the burning heat of his mouth, though in a less degree; could still drink more than he does, but finds relief by wetting his mouth. The blood drawn yesterday, exhibits the most firm and organized corium I ever saw in the most inflammatory complaint; it is contracted smaller than a shilling, and as hard to be torn as a piece of skin. Patient had two motions of his bowels last night, and had occasion to pass urine once in that time, whereas he used to rise at least four or five times in the night; urine six pints in the last 24 hours. To take three glasses of port wine in the evening, and to wear a flannel-shirt.

16th.—Much as yesterday, but did not rest so well last night, thirst rather more urgent, drank four quarts in all, and passed ten pints of urine; tongue moist and clean, pulse 76; thinks himself rather weaker than yesterday; had a free stool this morning.

V. S. to the amount of 14 ounces; the first cup soon exhibited the buffy coat; but the coagulum in the other was soft and easily torn, though the blood flowed in a uniform stream: the patient, however, as usual, seems stronger, and not the least inclined to faint; after bleeding the pulse was 80, in 20 minutes it was 88, and the skin became warm; in two hours after, the pulse was again 80.

17th.—Much as yesterday, but stronger, pulse 80 and regular, thirst moderate, urine nine pints and rather lighter-coloured, appetite improving fast.

18th.—Passed in the last 24 hours only six pints of urine, of a high colour and urinous smell; pulse 75 and not so full as last week; and he thinks himself weaker, bowels regular, thirst moderate. Applr. emplast. vesic. larg. lateri dextr. Contr. omnia.

19th.—The blister remained on 20 hours and discharged well, the pain prevented him from sleeping during the night, pulse 80, drink six pints, urine six do. of a urinous smell and taste; the blister produced no strangury; eight ounces of urine gave four drams of extract.

20th.—Slept well, urine eight pints, drank in all five pints, pulse 77 and full; he coughs a little, bowels regular, tongue clean.

V. S. to the quantity of seven ounces of a florid red, no deliquium, but on the contrary feels rather stronger; this cup on standing had no corium, but a soft coagulum, easily broken by the probe.

21st.—Feels better to-day than he has yet been; little or no thirst, appetite nearly natural, urine only four pints of a natural colour and smell, pulse 70 and regular; he wishes strongly to return home, as he thinks himself nearly well.

21st.—Thinks himself entirely well if the blister were healed up, as it gives him uncommon pain; pulse 71, skin, eyes, and tongue perfectly natural; drink two pints, urine three do., bowels regular, appetite nearly natural; insists on riding home to-morrow, a distance of 20 miles.

22d.—Is now returning home, and thinks himself perfectly well in every respect, feels vigorous and renovated, and experiences no inconvenience but the irritation of the blistered part, which still discharges well; ordered to take with him a bottle of the acid, and a box of the pills, and to avoid wet and cold, and refrain from spirituous liquors.

I have not heard how he remains since he left town; but I regret that I could not prevail on him to remain longer, for it is scarcely possible that in 10 days he could be radically cured. I was determined, however, to publish the result of the new plan, whatever the event might be. I need scarcely add, that the success of this case is entirely owing to the information I derived from Dr Watt's late invaluable publication; for without this I could not think of bleeding an old man of 72, who was in such a state of emaciation and debility, and particularly in such a disease. I have reported this case as faithfully as possible, having nothing to support, nor any object in view, but what should actuate every individual, and in particular every member of the profession.

P. S. I should add, that I have seen several cases of diabetes before this, in which no cure was effected; they were treated as recommended by Dr Rollo.

Belfast, October 25th, 1811.

IV.

Case in which a Metacarpal Bone was successfully removed. By J. T. Gregson, Surgeon, Sunderland.

While attending the anatomical and surgical lectures of that excellent anatomist, Mr Brookes, in 1808, he, amongst, many other improvements, pointed out the practicability of removing, with safety, and but small comparative loss, a diseased metacarpal bone. He expected by that means to do away the necessity of amputating the whole hand; and even, in the common method of amputating the finger (by removing the metacarpal bone also), to avoid the most prominent feature of the consequent deformity. As the following case affords a practical illustration of this operation, and no author, whom I have perused, having decidedly advised it, * its insertion in your valuable publication, if you deem it likely to prove of any utility, will oblige your obedient servant.

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* I have recently been credibly informed this operation has been practised by Mr A. Cooper, as an improved method of amputating the finger.

I was called, in the month of May 1811, to visit Charles Dixon, of this place, mariner, aged twenty-one years, and of a healthy habit, who, in the act of unloading his fowling-piece, while the breach was elevated, and the right hand held under the muzzle, for the purpose of receiving the shot, had, by the accidental discharge of the piece, the whole of the charge passed through the palm of his hand, by which the principal part of the second metacarpal bone was shot away; the second tendon of the extensor digitorum communis tore away high up the fore-arm, where it first becomes tendinous; the first and third metacarpal bones, simply fractured; together with extensive laceration of the integuments on the back of the hand. Although the case barely offered an opportunity, yet, with the conjoint opinions of Mr Atkinson and Mr Fothergill, surgeons of this place, I resolved to attempt the preservation of the remainder of the hand, by removing the second finger, and sawing off part of the remainder of the second metacarpal bone, near to the articulation with the carpus, and bringing the first and third metacarpal bones so close together, as to allow of the wound uniting by the first intention; and although that desirable effect did not immediately follow, a considerable tumefaction, attended with extreme pain, was induced by the lacerated state, already mentioned, of the principal parts of the surfaces of the wound; yet, by a strict antiphlogistic treatment, and emollient poultices, continued for the space of three weeks, a complete cure was effected, and the motion of the remaining three fingers is, at this time, as perfect as before. He has been, for the last three months, following his usual occupation as a common seaman, in which capacity he proves himself as useful as before his misfortune.

Sunderland, 21st October 1811.

V.

Case of Singular Torpor, in which Dissection did not discover any satisfactory Explanation of the Symptoms. By William Cooke, Surgeon, Plaistow, Essex.

Pathology is the part of medicine, perhaps, of the greatest importance, and yet, I presume, the least understood. It would therefore be highly advantageous to medical knowledge, if the *sectio cadaveris* were more frequently performed, and, in addition to the *general* good derived from the practice, the surgeon engaged in the examination, would have his memory re-impressed with many points in anatomy, which very readily escape, if he be far removed from the ordinary source of anatomical information, or do not employ some means to preserve that knowledge which he has obtained.

Although the person, whose case I am about to communicate, was a sufferer for seven or eight years, under circumstances that indicated considerable affection of the head, producing a general expectation in the minds of her medical attendants, that, after death, there would be found "considerable effusion between the tunica arachnoides and pia mater, and great distension of the ventricles;" yet death appeared more like a natural termination of existence, than an event arising from any particular disease. Certainly some morbid changes had taken place in the head, as will be shown in the sequel, but hardly sufficient to account for death, or for the peculiar torpidity, which was so great for the last two years, that the patient was said to "exist" rather than "live," or even for the two fits which she had; for, probably, we were not censurable for believing that they arose from pressure on the brain, and that some distinguishing mark of it might be discovered after death.

As the case occupied a considerable period, I shall transcribe the prominent circumstances as they appear in my minute-book.

Sept. 12. 1809.—Mrs ——, is 49 years of age, of short stature, thick neck, extremely delicate skin, inclined to corpulency, and has had seven children. She has been valetudinary four or five years. At the commencement of this period, a cessation of the menstrual discharge took place, and she became inordinately inactive, both in mind and body. When I first became acquainted with her, viz. about two years ago, her torpor was extreme, and the propensity to sleep, even when engaged in performing the social duties of her family, irresistible. Her appetite was generally small, bowels constipated, and pulse scarcely perceptible. The legs, hands, and face, were cold and œdematous; but there was no indication of ascites. The evacuation of urine varied, being sometimes free and at others scanty.

I employed, at first, gentle aperients and diuretics, but without advantage. Then I tried the myrrh and chalybeate medicine of Dr Griffiths, with occasional purgatives; and from these she derived considerable benefit; but the most successful medicines were those that operated powerfully on the bowels, and these it was requisite to repeat frequently. During the last year we chiefly depended on medicines of this class, having occasional recourse to tonics, as circumstances seemed to indicate.

She appeared, for a considerable time, progressively convalescent.

The œdema had disappeared, and the locomotive power was so much increased, that, whilst visiting her friends, about 27 miles from home, she walked a mile and a half without stopping, or experiencing much subsequent fatigue. She had continued, however, much inclined to a sedentary life, and was always cold.

On Friday the 1st inst. she returned from her visit, in a post-chaise, and, on the same day, walked for a considerable time about London. The immediate result of this exertion was great fatigue. On the succeeding Sunday, she was incapable of leaving home, and had a powerful propensity to sleep. The contents of the stomach were ejected several times in the course of the day, and appeared very bilious. We were inclined to attribute this relapse wholly to the unusual exertion two days before; and hoped that, after a short tranquillity, she would again be comfortable.

At two o'clock the next morning, Mr ——, her husband, awoke, and found her in a cold clammy perspiration, and speaking incoherently; and almost immediately afterwards she became convulsed and insensible.

I was called directly, and found her in this state, with her teeth clenched. It was not long before these affections a little subsided, and she swallowed an opening draught. An enema also was administered, and frequently repeated. In a few hours she had some alvine evacuation, and became more collected, and was able to speak. She complained of pain in her head, and was very averse to having any person in the room. She took a little beef-tea, and again became insensible, occasionally a little convulsed; the jaw rigid; the stomach uneasy, sometimes throwing its contents into the mouth, part of which escaped, and the other returned; pulse a little accelerated; respiration stertorous; the pupil not quite insensible to light.

Imponatur vesicatorium nuchæ.
Cataplasmata sinapis pedibus et capiti.
Capiti postea imponatur empl. canthar.
Adhibeantur hirudines iij. tempor. sing.

℞ Infusi sennæ tart. ʒx.
Pulv. jalap. ℈i.
Mannæ.
Tinct. sennæ āā. ʒi. m. ft. haustus, omni hora sumendus.
Repetatur enema.

The cataplasms were immediately applied to the feet, it being then about eleven o'clock p. m. The head had been shaved, and I had nearly put on the poultice, when she was seized with a violent struggling, which, after a few moments, gradually subsided, and she ceased to breathe. I confess, although aware that, in diseases accompanied with convulsions, a temporary suspension of respiration often supervenes, I thought, from several circumstances, the patient was dead. I waited, however, without communicating my apprehensions, with my hand on the wrist, and after at least a third, and perhaps half a minute had expired, we were apprized that she was not dead by a violent inspiration. From this time the action of the lungs gradually returned, and soon became free, except being rather slow, and stertorous. The leeches were placed on the temples immediately after the recommencement of respiration, and bled freely. When I removed the sinapism from the head, after having been on about two hours, she evinced the first sensibility by excessive frowning.

The temples and contiguous parts swelled considerably from the leeches.

For some time she continued indistinct; but, in a few days, she was able to sit up. She took small doses of the submuriate of quicksilver, to produce and keep up some affection of the salivary glands; and afterwards purgatives with bitters, &c.

Nov. 10th.—The mistura ferri composita has been taken for a fortnight or three weeks; but now medicine is omitted. She walks about the house and garden a little, and seems comparatively comfortable.

January 1811.—For some time after the termination of the above account, Mrs —— appeared to improve in strength, except in the last summer, when she suffered much for a considerable time, from difficulty of respiration; which, being concomitant with anasarca, was supposed to arise from effusion into the cellular structure of the lungs.

After a long trial of stimulating diuretics, &c. it was removed by the free use of digitalis combined with tonics.

After this period her state was very variable; but a greater or less degree of imbecility and tardiness of motion always existed. Her articulation resembled her movements, and the operations of the mind were not performed with more celerity than the actions of the body.

The senses were obtuse, but not materially impaired. Her hearing was often very dull, and the skin so insensible to titillation, that, in the summer, she could suffer a swarm of flies to travel about her face without any apparent inconvenience.

About the end of the last, and beginning of the present year, she complained of violent pain in the head, particularly at the back part, with considerable stiffness of the right sternocleidomastoideus muscle, and of all the muscles of that side the neck, by which the head was inclined to that shoulder. A variety of means were employed, viz. copious purging; calomel in small doses, chalybeate with myrrh, &c.; digitalis, blisters, &c. &c. without the smallest relief. The general coldness and œdema, and very weak pulse, made me reluctant to apply leeches; but having derived no advantage from any thing else, and recollecting their apparent benefit when used on a former occasion, I ordered two to each temple. They were applied on the 15th of February, and bled freely. On the 16th the punctures were surrounded with slight erysipelatous inflammation, to which Mrs ——— had been occasionally liable. The ensuing day the adjacent parts became very œdematous. The eyes were closed from swelling in the palpebræ, the cheeks almost even with the nose, and the lips protruded to the utmost the skin would admit of; every feature of the face was destroyed. *

Having on former similar occasions employed the liquor plumbi acetatis dilutus with success, I had recourse to it now, although for some reasons it appeared objectionable. The swelling rapidly subsided; but in the afternoon of the 18th, the distension of the throat, particularly about the pharynx, increased with equal rapidity. When the attendants saw the swelling commencing about the chin and neck, they waited for my approbation before the lotion was applied. When a few hours had elapsed I was sent for, and from the violent efforts which were requisite to respire, I apprehended suffocation was very near. She was not able to swallow any thing. By irritating the fauces a quantity of mucus, which had accumulated, was thrown out, and gave some relief. The chin and neck were hot.

I ordered linen to be peremptorily dipped in the lotion and laid over the parts, and the benefit was immediate. In a few hours

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* The leeches had been applied to another person without producing any bad effects.

she could breathe comfortably, and swallow; some aperient and fever medicines were prescribed for her.

20th.—She could sit up, and take nourishment; but although the œdema had abated it was not removed; and deglutition was rather difficult. She was, however, greatly better.

About three o'clock in the morning of the 21st I was called up; the patient had symptoms of an attack similar to that in September 1809. She was breathing stertorously; occasionally muttering and restless, nearly insensible, but might be roused to attention for a moment.

Habeat enema stimulans, statim.
Submuriat. hydr. gr. viij. in bolo statim sumenda.

The head was shaved, and a cataplasm of mustard and flower mixed up with brandy, applied to it and to the feet.

Imponatur empl. vesicat. capiti post cataplasma.

A physician was now called in.

Mrs ——— was completely insensible.

The arms to be placed in bags of chamomile flowers, heated with hot water, and sprinkled with mustard. The legs to be fomented with a strong decoction of horse-radish, and the thighs to be rubbed with a stimulating embrocation of spir. amm. et tinct. canth.

Continuentur enemata.
Repetatur hydrargyri submurias nocte.

22d.—She can swallow a little fluid, and reply to questions. There has been but very little discharge from the bowels.

℞ Tincturæ jalapæ ʒii.
Ammon. carbonat. gr. vi.
Pulv. jal. ℈i. syr. simpl. ʒi.
Aquæ menthæ sat. ℥vi. M. ft. haustus 4tis horis sumendus.

In the course of the day the bowels were freely evacuated.

The beaf-tea, wine, and every thing she takes, are highly seasoned with capsicum. That degree which is pungent to another person is scarcely perceived by the patient.

23d.—Considerably better. She complains of headach, and extreme general soreness. The feces are offensive. The propensity to sleep continues, but when fully awake she is rational. She can now open her eyes. The nourishment chiefly depended upon is soup, strongly impregnated with meat.

Continuetur haustus.
Calomel. gr. ii. vespere.

24th.—Much recovered. The inclination to sleep diminished; bowels open; but the head continues painful.

After progressive amendment for a few weeks, she was able to go down stairs, and soon regained her former state, at which she again became stationary.

June 3d.—Mrs ——— has never left off medicine since the conclusion of the last report. Calomel has been employed again to affect the mouth, with bitters and tonics; the mistura ferri comp. with and without digitalis: but the greatest temporary benefit has been experienced from the following draught:

℞ Rad. rhei concisæ ʒii.
Corticis aurantii exsiccati ℥ss.
Capsici bacc. ʒss.
Aquæ ferventis ℥xii. Macera per horas duas; cola et adde
Pulv. cinchonæ gr. xv.
Tincturæ scillæ gtt. xv. M. ft. haust. bis die sumendus.

During the last week the pain of the head increased, on which account I ordered the head to be shaved and blistered, from which she had some alleviation of the pain for a day or two. I purposed keeping the blister open for some time; but perceiving that the head and face were becoming erysipelatous, I was obliged to heal it as quickly as possible.

The torpor and debility were much as they have been for many months. She walks slowly about whenever the weather will permit, for half an hour or a little more; appetite perhaps a little better; but experiences great difficulty in mastication from tender gums, and stiffness in the massiter muscles. She speaks so very deliberately, and with so much apparent difficulty, that it is painful to converse with her.

The draughts, with an occasional dose of submuriate of quicksilver, keep the bowels open.

The rigidity of the lateral cervical muscles continues.

6th.—The pain of the head not having lessened, I ordered some decoction and tincture of bark, with sulphuric acid, which, for a few days, seemed advantageous.

20th.—Affection of the head, torpor, and inclination to sleep, materially increased.

℞ Tinct. guaiaci ammoniatæ ii.
Decocti cinchonæ ʒx. ft. haustus bis die sumendus.

25th.—Headach increased; hands and face swelled; respiration difficult, and pain in the side.

℞ Misturæ Camphoratæ ℥iss.
Tinct. digit. gtt. xx. ft. haust. bis die sumendus.

30th.—Much better in every respect.

July 16th.—Continues convalescent.

℞ Mist. camph. ℥x.
Tinct. cinnam. comp. ℥ii.
Carb. ammon. gr. v. M. ft. haust. ter die sumendus.

August 15.—Mrs —— is now better than she has been for twelve months or more. Is conversable; can walk about for an hour or more; appetite good; face and hands reduced in size; but still a degree of torpor remains.

For some nights she has been in a tepid salt-water bath.

20th.—Appetite fails, and respiration again becomes laborious, but the head free from pain.

She had proposed a journey to Dover, but now determines only to visit her friends at Gravesend.

She undertook this journey in a post-chaise on the 23d, and bore it well; but, finding her breathing increasing in difficulty, she returned on the 30th. She then made but little water.

After a few days she was better again; but, on the 5th of September, symptoms of a fatal nature appeared. She came down stairs; had no pain; but was scarcely able to speak; her eyes were depressed; and her countenance anxious.

She ordered, and ate a lamb chop for dinner.

Impen. vesicatorium sterno.

Takes stimulating diuretic medicines.

6th.—Had not rest last night; came down stairs at seven o'clock A. M.: could scarcely speak; but ate some lamb for dinner. In the middle of the day she read a long letter from her husband, who was then absent, although with some difficulty. She went to bed about five o'clock; her breathing becoming gradually shorter, until it ceased. She died about half past nine o'clock.

Sectio Cadaveris.—On the 9th Dr Birkbeck, who had attended the patient several times, favoured me with his company, when, with the assistance of Mr Desormeaux of Barking, I opened the body.

The body was considerably changed.

The brain was soft, but not so much so as to prevent our examination.

There was no morbid appearance on the dura mater. The vessels of the pia mater were rather turgid, and at the anterior and under part of the right hemisphere, the turgescence was by far the greatest.

There was no unnatural effusion.

The ventricles contained a very little more fluid than usual; the posterior horn seemed rather enlarged.

When the brain was inverted, we found about an ounce of aqueous fluid collected in the basis cranii. The tunica arachnoides beneath the cerebellum was considerably thickened, and the vessels of the pia mater in this part more turgid. There was also one small clot of blood, perhaps the size of a large pea.

There was no alteration in the structure of the brain.

The abdomen had become greatly distended in the course of the last 24 hours from beginning decomposition; but we found all the viscera in a perfectly natural state.

The stomach, intestines, and liver, were particularly examined, and appeared decidedly healthy.

The gall-bladder was distended with healthy bile. Perhaps there is no impropriety in mentioning, that the appendages to the uterus on the left side were of a dark red colour, but on the right they appeared as usual.

Plaistow, Essex, Sept. 19. 1811.

VI.

Case of Inguinal Aneurism Cured by tying the External Iliac Artery.

By William Goodlad, Surgeon.

In the beginning of June I was consulted by John Ramwell, a stout muscular man, of a spare habit of body, a florid complexion, and about 41 years of age. Upwards of three years ago, the patient first perceived a swelling not much larger than a pea on the inside of the right thigh. It caused very little pain or inconvenience, and did not increase so as to alarm him, till, after his recovery from a severe dysentery, nine months ago. From that period, its increase has been rapid. It is now the size and shape of a pint bason, with its rim inverted; although six months ago it was not, by the patient's report, more than one-fourth its present size. The tumour is situated at the superior and anterior part of the thigh, extending along Poupart's ligament, to within two inches of the anterior superior spine of the ilium, and about four inches down the thigh. It is dense, circumscribed, and appears to sink deep amongst the muscles. If grasped firmly, a dull pulsatory motion is clearly distinguishable. This pulsation is rendered more evident by bending the thigh upon the pelvis; and by a continuance of the pressure, the swelling becomes much less prominent. The artery passes along its most interior surface, and gives to the finger the peculiar thrill characteristic of aneurism. It retains this character, till it passes through the adductor femoris to descend into the ham, when it is no longer to be traced.

A bread-baker by trade, the patient has been accustomed to occasional great exertion, in carrying loads of flour up several sets of stairs. But his employment, during the last seven years, has been chiefly performed in a sitting position; and requires almost no exertion. When I apprised him of the necessity of an operation, I learnt that he had already consulted two surgeons, one of whom advised the removal of the tumor by extirpation; the other had recommended the frequent application of blisters to it. This diversity of opinion was attended with a proportionate want of confidence in my patient, who chose to defer it; and, as his pulse was good, his appetite tolerable, his bowels regular, his general health in short little impaired, I gave him general directions, and desired to see him again ere long.

At the end of a fortnight the swelling was much in the same state, though somewhat larger. It produced a numbness in the thigh, and the leg towards evening began to swell. A troublesome cough now came on, which, with a few days exertion, produced a more rapid increase. My friend and late master, Mr Killer of Manchester, who with my friend Mr Hamilton did me the favour to examine my patient, entirely coincided with me in opinion, and the operation was consented to when the cough was remedied. For this purpose opium with digitalis was administered, and rest, low diet, and occasional laxative medicines recommended.

From this period to the latter end of July, the tumour increased so rapidly, that it was thought advisable to delay the operation no longer, though some cough still remained, and though the temperature of the atmosphere was oppressive. Accordingly, it was performed on Tuesday the 29th of July, in the presence of Messrs Killer and Hamilton, whose very friendly attention on this and every other occasion I have great pleasure in being able to acknowledge.

An incision, upwards of three inches in length, was made through the integuments, beginning at the upper margin of the tumour, about three inches from the symphysis of the pubes, and carried almost directly upwards. In the dissection of the cellular membrane, covering the aponeurosis of the external oblique muscle, several arteries were divided, which supply the adjacent glands. These vessels were immediately secured, and more than two inches of the tendinous expansion exposed. Its fibres were carefully divided and dilated downwards, by the probe-pointed bistoury introduced upon the finger. The artery was now clearly distinguished by its pulsation. The fibres of the external oblique, with the margin of the internal and the transversalis muscles, were also divided upwards, to allow sufficient space for the two fore-fingers of the left hand to be placed in contact with the arterial sheath.

I endeavoured to detach the fascia, so as to be enabled to pass my finger round the artery. In this attempt considerable difficulty was experienced. But, by keeping the artery firmly in its situation upon the psoas muscle, with my finger and thumb in contact with it, I succeeded in passing the eyed end of a probe (about half an inch of which was bent to a right angle) under the artery, from within outwards. The shaft of the probe was gradually bent likewise to facilitate its turning in the wound. A double ligature being put through the eye, the probe was redrawn. The upper ligature was tied as high as possible by Mr Killer. The pulsation in the tumour immediately ceased. The lower ligature was also tied; but as the space between the ligatures did not appear to warrant the division of the vessel, it was left entire. The integuments brought into contact, were secured by a couple of stitches, stripes of adhesive plaster were applied, and a roller passed round the whole. The patient was put to bed with the thigh bent upon the pelvis. The temperature of the limb had been kept up during the operation, by a flannel roller applied around it. This was still retained; the whole limb felt comfortably warm, and he had little pain. At nine o'clock in the evening, I found his skin cool, tongue somewhat furred, pulse 100, wound easy. The leg and thigh quite as warm as on the opposite side, foot a little colder. He has had a few short slumbers, and has taken bread, milk and tea. To take an opiate at bed-time.

Wednesday, 7 A. M.—He complains of much pain in the back, occasioned by continuing in the same position, which prevented him from sleeping. He was therefore turned on his back, with the knee bent and supported by pillows, as in fracture of the thigh. He has occasional throbbing, some thirst, pulse 90, skin cool. The leg and thigh quite as warm as the other, the toes nearly so. To take lemonade for his common drink. One P. M.—He has had an hour's sleep; cough somewhat troublesome; pulse 100; tongue furred in the middle; a little soreness in the belly. A gentle laxative was given.

At nine o'clock P. M. the limb was hotter than the healthy one; pulse 104, and fuller. He has had considerable pain in the head, which continued till seven o'clock, when he had an hour's refreshing sleep, and awoke better. The pain in his back continues troublesome. He has coughed little, and expectorates freely. No pain, or tension, in the abdomen; tongue moist, though furred; urine hot, but not high-coloured; no stool.

R Sulph. magnes. ℥iij.
Vin. antim. gtt. x.
Tinct. sennæ ʒij.
Aq. puræ ℥i. M.

To be taken immediately, with a saline draught every four hours.

The heat of the atmosphere has been quite oppressive.

Morning visit, (second day.)—He passed the night with only an hour's sleep; he complains much of his back, and a slight headach; face flushed; skin hot and dry; pulse 116, rather hard; no tension in the abdomen; cough troublesome in the night; water high-coloured, and scanty; no stool. To six drams of infusion of sennæ, and a dram of the sulphate of magnesia, half an ounce of the liquor of acetite of ammonia and ten drops of antimonial wine were added. To be taken every three hours until the bowels are opened.

Noon visit.—He had a motion soon after I left him in the morning, and several hours comfortable sleep in the forenoon. Pulse 102, soft; skin cool; less thirst; back easier; cough still continues. The whole limb is comfortably warm; he has perfect sensation and power of motion in the toes; belly quite easy. To continue his medicines till he has another stool.

He had some return of fever towards evening, but as it subsided he had two hours sleep, and was much refreshed. Pulse 108; head easy; tongue moist and clean; skin cooler; urine hot and high-coloured. He has had another stool, and has taken plentifully of pottage, butter-milk, and tea. To a dose of his purgative medicine were added twenty drops of laudanum, to be taken at bed-time.

Friday, August 1st, (the third day after the operation.)—The dressings were removed for the first time. The inferior half of the wound is a mere line, the superior half nearly so. There is a slight blush upon the edges, but no pain nor tenderness; discharge moderate and healthy; tongue clean and moist; limb warm and sensible; appetite good; had a stool this morning.

Saturday.—He has slept well the two last nights, and has taken broth, pottage and milk; pulse 84; tongue clean; no thirst; bowels regular; limb comfortable. The wound is somewhat separated above the upper ligature; discharge copious, but quite puriform. The opiate to be repeated.

Sunday, (the fifth day).—The wound continues to look well; discharge copious; the ligatures from the small vessels which were divided in the operation have come away; the stitches, beginning to ulcerate, were removed also; limb warm and easy.

Monday, (sixth day).—Much as yesterday, except that his cough was troublesome in the night. He has also been much fluttered by a sudden noise at the door, but is now calm; the wound looks well, though a slough lines the opening around the upper ligature; discharge somewhat increased, but of a proper quality; pulse 82; appetite good. To take animal food once a-day, and a pint of porter in the twenty-four hours.

Tuesday.—A week has elapsed since the operation; he continues to go on well; his general health is good; bowels regular; pus healthy; the lower half of the wound continues united by adhesion, except where the stitches were inserted. The upper half of the wound is not more than ¼ of an inch in breadth; granulations healthy. The slough surrounding the upper ligature is in part removed, and little pain is complained of, though considerable pressure be applied to the parietes of the abdomen.

Wednesday.—The patient has been taking, night and morning, during the three last days, pills containing half a grain of opium, digitalis, and calomel, and three grains of rhubarb. His cough is now better; he sleeps well, and had a stool this morning; pulse 86; appetite good; discharge yet considerable, but healthy.

Friday.—The slough lining the aperture which I have before mentioned, is come away; discharge yet copious; has a stool daily; no pain; limb comfortable; pulse 84 directly after dinner.

Sunday.—Continues to improve; discharge not so copious.

Monday.—Much as yesterday; discharge greatly abated; granulations now closely surround the upper ligature; the lower ligature has created little irritation; the wound is united around it; the pulse during the last three days has ranged from 74 to 80; tongue clean; bowels regular; limb easy.

Tuesday, (the fourteenth day).—The skin over the aneurismal tumour can be drawn up nearly two inches, though before the operation it was quite tense; its contents are fluid; the wound heals.

Thursday.—The ligatures came away yesterday; the patient is allowed to sit up in bed, and to move the limb occasionally; appetite continues good; his bowels regular.

It will not be necessary to transcribe further the daily progress which the patient made towards recovery. At the end of three weeks, the wound was little larger than a pea; the discharge was trifling. He was now allowed to get out of bed, and walk about the room; though very weak, there was no perceptible difference in the strength or feeling of the limbs. The numbness in the thigh, which had become troublesome before the operation, still continues. The tumour decreased rapidly, particularly towards the spine of the ilium. At the end of a month, the swelling has decreased at least one-third; the wound is perfectly healed, and the patient increases in strength daily; he is now able to take considerable exercise, having walked nearly two miles in one day; the limbs are of an equal strength and thickness, and the numbness in the thigh quite removed.

I much regretted that, in this operation, I could not adopt Mr Abernethy's improved method of tying the artery to its full extent, since I could not separate the vessel from its connexion, sufficiently to admit of its division, without a degree of violence, which would have more than counterbalanced the danger of a short space of the tube (between the ligatures) being left separated from the surrounding parts; yet I am decidedly of opinion, that the chance of success from the operation was diminished by this occurrence. I would, however, in every case, apply a double ligature upon the vessel, since the same process which prevents the accession of hæmorrhage by the application of the upper ligature, would appear likely to hinder such an occurrence from the lower orifice also; and by producing adhesion of the coats of the vessel at two distinct points, you render the ulcerative process less extensive, and confine it in all likelihood entirely to the space between them.

The tumour, at the period of the operation, extended from the anterior superior spine of the ilium, to a short distance from the angle of the pubes; and its apex rose so high, that it rendered Poupart's ligament exceedingly obscure in this space. This rapid extension made me apprehensive that its basis would extend so far under the crural arch, that a sound part of the artery could not be reached without considerable difficulty. This circumstance appears the more likely to take place, when we consider the powerful resistance which the fascia of the thigh presents to the increase of the tumour beneath it, and the comparative facility for its ascent upwards, where it meets with resistance chiefly from the fascia iliaca of Mr Cooper. That the proper sheath of the femoral vessels, in its natural state, can contribute little to prevent such an event, will be easily conceived, particularly if we agree with the same skilful surgeon, that all crural herniæ are protruded, in the first place, into this sheath, and that the openings for the passage of the lymphatic vessels are large enough to allow their exit from it.

This event took place in Mr Abernethy's second case; and that it does not more frequently occur, is owing to that law which Mr Hunter first noticed, by which extraneous bodies approach towards the surface, rather than in a lateral direction, and by the pressure of the projected fluid producing condensation of the parts around it.

The probability of the aneurismal sac participating in the irritation which the presence of the ligatures may produce, will be in proportion to their contiguity. Mr Abernethy, therefore, very judiciously directs, that the artery be tied as high as possible, though the difficulty of reaching it is thereby increased, and though in such cases the surgeon must lay aside the knife, as soon as he is able to reach the arterial sheath, and conduct the future steps of the operation by the finger, or by a blunt instrument introduced under the artery.

As the ulceration of the aneurismal sac would, in any case, produce so much constitutional irritation, as would render this operation doubly hazardous, (and from the large size which it attained in Barnwell's case, almost certainly fatal,) it cannot, I think, be too strongly recommended to proceed to the operation at as early a period as possible; that is, as soon as the flow of blood through its natural channel, and the consequent increase of the collateral branches, appears adequate to the support of vitality in the limb.

It is pleasing to reflect, (because it shows the favourable progress of this branch of surgery), that though Cheselden trusted so little to this power, that he had difficulty in believing the event when it had taken place in the arm, the judicious boldness of Mr Abernethy has clearly demonstrated, that the operation may be performed with safety in any situation, where anatomy enables us to reach a healthy portion of the artery.

That the supply of blood was adequate to the proper nutriment of the limb, was in this case evident from the day of the operation; although the artery passed too near the surface of the tumour, and its pulsation downwards was too easily traced to admit a supposition that the circulation through it was much impeded. The absence of extensive œdema confirms this opinion, and is easily accounted for, by the sac being almost entirely external to the femoral vein.

The secondary fever was much less than could have been expected, especially as the temperature of the air in the four or five first days after the operation, amounted to 70° in the shade.

Bury, Lancashire, Sept. 20th, 1811.

P. S.—Since this operation I have heard of a similar case in this neighbourhood. The patient was allowed to die without any effort to save him by an operation.

VII.

Case of Erythema Mercuriale, accompanied by an Affection of the Cornea. By J. Nicholson, Member of the Royal College of Surgeons, London.

John Swainy, a native of Ireland, of a spare habit, light eyes and hair, and a private in the 87th regt. was admitted into the regimental hospital of the Derbyshire Militia at Chelmsford, June 6th 1810, with chancres on the prepuce and phymosis. Frictions with ung. hydrarg. were immediately employed; and a weak solution of the hydrarg. murias was injected between the prepuce and glans penis.

On the 10th, gonorrhœa supervened. On the 15th, the gums were much affected by the mercury. On the 18th, a gland in the right groin was enlarged, and tender, and he complained of pain in the penis, which was slightly swollen and inflamed. There was a profuse purulent discharge from the urethra. The antiphlogistic regimen was enjoined, with laxatives, and an emollient poultice was applied to the penis.

These smyptoms continued without abatement till the 21st, at which period he had used nine drams of ung hydrarg., which was all the mercury employed, except two grains of submurias hydrarg. which were given in combination with opium on the 19th. On the 22d, the tumefaction and inflammation of the penis continued. The lower part of the abdomen, the groins, and upper part of the thighs, were observed to be covered with innumerable papulæ of a bright red colour, accompanied by a very distressing itching sensation. Tongue was white; bowels costive; pulse 120, quick and full; skin hot and dry, and great thirst. Eight ounces of blood were drawn from the arm, which exhibited a few patches of coagulable lymph on the surface of the crassamentum. Before the ligature was removed, he became faint. A dose of sulphas magnesiæ was given; and a draught containing antimon. tartaris and sulph. magnesiæ was ordered to be given every four hours. All the ointment was carefully washed off the thighs, and his bedding changed. He was then put into the warm bath.

The following account is extracted from the daily reports.

June 23d.—Pulse full and frequent; skin hot and dry; tongue white; thirst continues; has had several stools since yesterday; the itching was much relieved by the warm bath. The inflammation and tumefaction of the penis are lessened. The papulæ are more diffused, and the scrotum is much affected.

Cont. haust. ant. tart. &c.
Utatur balneo tepido.

24th.—Pulse 120, skin hot and dry; tongue dry, brown in the centre, edged with white; the tip and sides are of a bright red; great thirst; bowels regular; urine high-coloured. The papulæ continue to extend over a larger surface. Numerous small vesicles, containing a serous fluid, have appeared on the thighs and lower part of the abdomen. The itching is not so distressing; but he is very restless. Let him have barley-water, acidulated with potassæ supertartris, to drink.

Cont. haust. 4tâ quâque horâ.

26th.—The erythema has become universal; itching less distressing; desquamation from part of the thighs, and lower part of the abdomen; the palpebræ and tarsi are swollen and inflamed. The other symptoms remain as on the 24th.

Cont. haust. ant. tart. sine sulph. magnes. et cum addit. acet. potassæ ℈j.

Adde tinct. opii gtt. xxv. haustui vespertino.
Utatur balneo tepido p. m.

28th.—A slight exudation from the groins and scrotum appeared yesterday; it is now increased in quantity, and become ichorous. Cont. haust. Applic. amyl. contrit. vesiculis.

30th.—The pulse is small, soft, and frequent; tongue moister and cleaner; bowels open. Desquamation and discharge go on. The palpebræ are less swollen, but there is exudation from them. Dozes much. Omit. haust. ant. tart.

℞ Decoct. cinchonæ ℥viii.
Ext. cinchonæ ʒii.
Acid sulph. dil. ʒiss.
Capt. ℥i 4tâ quâque horâ.
Vini rub. ℥iv. quotidie sum.

℞ Tinct. opii gtt. xxx. e mist. camph. ℥i. h. s. sumend.

July 2.—The inflammation of the tarsi is increased. Pulse soft and frequent. The teeth and gums are covered with sordes. Exudation from various parts of the body. There is not more fetor than is usually attendant on a mercurial sore mouth. Bowels costive. Cont. cinchona.

Cont. vini rub. ℥viii per diem.

℞ Cerat. calaminæ, olei amygd. ā ʒi. tarsis applic.
Cont. amyl. contr.

4th.—Pulse 96, regular. Skin feels soft where the cuticle has separated. Desquamation goes on; but there is very little exudation. Tongue clean and dry. The appetite has been very much impaired during the disease, but is now improving. He had a copious stool yesterday from ol. ricini ℥ss.

Both eyes have a very unusual appearance, which has come on during the night. The corneæ have nearly lost their transparency, and appear dry, exactly resembling an eye which has been exposed to the air for some time after death. He continues to doze much, but answers questions readily, and does not complain of any uneasiness or inconvenience from the affection of the corneæ. Cont. medicin.

6th.—Pulse soft and frequent; tongue clean and dry; bowels regular; inflammation of the tarsi much lessened; corneæ remain as described on the 4th. The cuticle is entirely desquamated. There is only a slight discharge from the scrotum remaining. Cont. med.

8th.—Pulse 96, soft; tongue dry; bowels costive; says he feels well, except his mouth, which is still sore; he is very much debilitated; the corneæ are regaining their natural appearance.

℞ Ol. ricini ʒvi. statim sum.
Cont. med.

12th.—Pulse 80; skin dry; tongue clean and moist; appetite good; bowels regular; corneæ perfectly transparent; the phymosis continues, with slight purulent discharge; he had porter ℔ii. per diem, instead of wine, and some animal food. He takes the cinchona twice a-day.

28th.—Is daily improving in strength; complains of much pain in the left hip, and has difficulty in moving the thigh.

The pain of the hip soon left him, and he regained the perfect use of the thigh. His recovery was slow, and was retarded by two febrile attacks. He was discharged from the hospital on 19th September, free from disease, though not strong enough for duty, to accompany the detachment to which he belonged on its march into Staffordshire.

Hythe, Kent, 8th Oct. 1811.

VIII.

Case of Wounded Diaphragm. By ALEXANDER BOYLE, A. M. Surgeon, 62d Regt. of Foot.

W. G., a man about 40 years of age, much addicted to the use of wine, was, on the 2d of January 1810, soon after dinner, suddenly seized with violent pain, which he referred to the epigastrium; and which was immediately followed by nausea and vomiting. I saw him, about an hour after he was attacked, when the inclination to vomit still continued, and he began to complain of cold and chilliness. The pain in the region of the stomach did not now appear so exquisite as at first; nor was it evidently increased by moderate pressure. There was no tension of the belly; but, on the contrary, I remarked an extraordinary hollowness, or drawing in, about the umbilicus. He complained greatly of thirst; his tongue was dry, and chopped, and had a bright glossy hue. He told me he had had a regular motion of his bowels the same morning. His skin was hot and dry; and the temperature about 98°. His pulse was full and hard, and 90 in the minute. Though the symptoms varied a little from those usually met with in gastric or intestinal inflammation, there still appeared such characteristic marks, as determined me, by a vigorous treatment, to guard against the fallacious nature which those complaints sometimes assume. Twenty-six ounces of blood were taken from the arm; and the evacuation would have been carried still farther, had I not been obliged to desist, on observing a tendency to deliquium coming on. He was put into a tepid bath; he took an ounce of *ol. ricini*; and a large enema was thrown up. The oil was immediately rejected; but, on his coming out of the bath, he had two copious stools. After this, the pain was not sensibly abated, and the smallest quantity of fluid, received into the stomach, was instantly rejected. In this state he continued the whole night. Towards morning, he had another evacuation by stool; he appeared cheerful, and said he felt no pain. These symptoms, however, did not deceive me; his pulse was scarcely to be felt, and cold drops of sweet bedewed his forehead, plainly announcing the fast approach of death, which happened soon after.

Appearances on Dissection.

On opening the abdomen, there appeared an extraordinary derangement of parts. The stomach first presented itself, distended with fluid to a most enormous size, and occupying nearly the whole cavity. It appeared to be somewhat drawn from its natural situation, and approached so closely to the *pubes*, that the fingers could scarcely pass between them. With the exception of a few minute red points externally, the stomach exhibited no other marks of inflammation. The stomach being now raised up, the diaphragm presented a *convex* surface towards the abdomen. It was very tense; and the whole volume of intestines which is not bound closely to the spine by the mesentery, was found to have passed through a preternatural opening in the muscular part of the diaphragm, on the left side. On opening the thorax, it was found to contain several quarts of fluid, no doubt secreted on the vast surface of inflamed intestine, found lodged within that cavity; none, however, was found in the abdomen; its escape from the thorax being, no doubt, prevented by the pressure of the parts upon the orifice, acting in the manner of a valve. Both lobes of the lungs were of a pale colour, and studded with small purple spots. The left lung was compressed into one-third of its natural size, and was confined to the upper part of the cavity, while the lower part of the chest was completely occupied by the displaced intestines. The duodenum showed no marks of disease, and retained its natural situation. The *jejunum*, however, the whole of the *ileum*, (except about eight inches) and the transverse portion of the colon, had passed through this preternatural opening. These parts were of a livid blue colour, but of firm texture; and, on several parts of the mesentery, and mesocolon, which were loaded with fat, there appeared large, red, and livid blotches. The opening easily admitted two fingers; and the omentum, which had also passed through it, and adhered firmly to the adjacent parts, was convoluted round the colon in a singular manner, and nearly invested the whole of the protruded intestine, in a sort of pouch or sac. The edge of the orifice was smooth, and had a ligamentous hardness. It did not embrace the parts so firmly as to produce strangulation of the gut, and the intestinal tube was quite pervious.

All around the margin of the opening, strong membranous productions of considerable length were observed, stretching out, and forming attachments to the pleura costalis, the mediastinum, and some parts of the intestines. My attempts to account for the singularity of these appearances, brought to my recollection that this man, about eleven months before, had received a wound in the left side, between the sixth and seventh rib, passing obliquely downwards. He was brought to the hospital about midnight. A small portion of soft cellular membrane protruded from the wound. The wound was dilated in order to facilitate the return of the protruded part, but was healed in a few days, without the appearance of any bad symptom. About seven months after he had received this injury, he complained of slight disorder in his bowels, but of which he soon recovered. This, I believe, was the first time he had complained since the wound was inflicted. From this time, however, he became less able to bear fatigue; he could not stand erect without feeling some uneasiness; respiration was affected; and even moderate exercise was supported with difficulty.

Observations.

From the days of Hippocrates, wounds of the diaphragm have been deemed mortal. The above case, however, presents one instance, wherein this event did not immediately follow; and in which it did not ultimately seem to have depended so much upon the mere injury inflicted on the part, as upon the future derangement to which the wound gave origin. Some instances are related by Morgagni, in which wounds passing through the muscular part of the diaphragm are said to have healed; which happy circumstance, in the case now related, appears to have been prevented by the interposition of the omentum, which speedily formed attachments within the cavity of the thorax; and the coalescence of the edges of the wound around this substance, was seemingly interrupted by the constant action of this muscle, in performing the office of respiration. Except the protrusion of a small portion of the omentum, no symptom appeared, usually supposed to denote injury of this part. There was neither hiccup nor paraphrenitis; and the respiration did not become affected until seven months afterwards, when, it is probable, the vast volume of intestine accumulated in the thorax, in some degree impeded the action of the heart. In all the cases which came under the immediate inspection of Morgagni, the wound of the diaphragm was complicated with wounds of other important parts, as of the heart, lungs, and stomach; and they all, as might be expected, very soon terminated fatally.

Melazzo, 29th August, 1811.

IX.

Case of Chorea cured by Purgative Medicines, communicated to DR J. HAMILTON senior, by HARDWICKE SHUTE, M. D. Physician, Bath.

THE prejudices entertained by very high medical authorities against the use of purgatives in chorea, at least to any considerable extent, can only be effectually counteracted by an accumulation of evidence to the contrary; and in this point of view, every impartial history of this disease and its treatment becomes interesting. The opinion very generally entertained, that the free use of purgatives will always induce a great degree of debility, has so strongly prepossessed the minds of practitioners in general, that nothing, I believe, but individual experience can fully prove it to be erroneous.

The person whose case I am now to record, was a female of a constitution rather delicate than otherwise, and inclining to the sanguineous temperament; she complained but once of weakness; but the state of the pulse, and other circumstances, induced me to persevere in the practice I had adopted, and the complaint was not repeated. No tonic remedies were had recourse to after the removal of the spasms, as nothing occurred to indicate their use. The obstinacy of the complaint under a different treatment, as it occurred five years ago,—the period of its recurrence, (this being considered as a disease almost peculiar to children)—the violence and speedy removal of the symptoms, as well as the great advantage derived from the use of purgatives, cannot escape observation.

August 29. 1811.—Miss —— in her 21st year, is affected with constant and violent irregular motions of the arms, legs, head, and occasionally trunk of the body. The right arm is chiefly affected, and much bruised from the repeated blows it receives. The spasms continue during sleep, which is short and disturbed. The speech is hurried, and very inarticulate; the belly irregular; appetite much impaired; the pulse calm, and not affected by the spasms. The catameniæ are regular, and disappeared a few days previous to the attack. Miss —— was affected with a disease very similar to her present complaints five years ago, which continued fifteen weeks. She has been ill about ten days, is now confined to bed, and has taken some opening medicines and assafœtida.

℞ Hydrargyri submuriatis gr. v.
Jalapæ pulveris gr. xv.
Confect. rosæ canin. q. s. ut fiant pilulæ No. iv.—hora somni sumendæ;—et cras primo mane habeat misturam ex
Infus. sennæ ℥iij.
Tincturæ sennæ,
Potassæ sulphatis āā ℥ ss.

30th.—The medicine has been taken; the alvine evacuation is copious, fluid, dark, and scybalous. The spasms are not so violent, the left side being chiefly affected. Sleep is more composed.

℞ Massæ pilul. aloeticarum (Ph. Ed.) ℥ ss. Divide in pilulas xlviii, quarum sumantur tres horâ somni, et cras mane repetantur.

31st.—The alvine evacuation is less copious, but in other respects the same as yesterday. The spasms are less violent, and the symptoms, on the whole, are a little abated.

Repetantur pilulæ aloeticæ No. iii. quartâ quâque horâ.

Sept. 1st.—One drachm of the aloetic mass has been taken; the alvine evacuation is the same as yesterday; but the spasms are much aggravated. The patient complains of weakness, but the pulse is calm, and moderately firm.

Continuentur pilulæ aloeticæ ut heri.

2d.—One drachm of the aloetic mass has been taken, but the alvine evacuation is scanty and scybalous, though of more natural colour than hitherto. The patient left her bed this morning, and has been walking in the garden. The right foot is not raised from the ground in walking, though it is free from any spasmodic motion, which is almost entirely confined to the flexores digitorum of the left hand. She is in every respect better.

Repetatur cras mane mistura e senna ut antea præscripta; et continuenter pilulæ aloeticæ.

3d.—The alvine evacuation is more copious than yesterday, but in other respects the same. The convulsive motions are a little increased.

Habeant pilulas aloeticas No. iii. manè et vesperè.

5th.—The pills have been continued as directed; the evacuations are fluid, less scybalous, and more natural in appearance than hitherto. The convulsive motions are nearly gone. Continuentur pilulæ u. a.

7th.—I found my patient working with her needle, and free from spasms. Cont. pilulæ manè et vesperè.

9th.—Continues well.

12th.—Continues well. Habeat pilulas aloeticas, quarum augeatur vel minuatur dosis ut res requirant.

19th.—No return of complaints.

Bath, Nov. 16th, 1811.

X.

Observations upon Venereal Disease. By J. PEAKE, Member of the Royal College of Surgeons, London.

THERE has been a doubt in the minds of medical practitioners, whether those symptoms of venereal disease, termed *secondary*, as venereal sore throat, &c. can come on antecedently to some local affection from the application of venereal virus, producing ulceration or chancre.

Some cases have come under my own immediate notice and care, which will, I think, warrant a belief, that an absorption of the virus may take place, without producing any local effect; and that bubo, and even ulceration of the throat, may be, as it were, the primary seat of the disease.

A young man lately consulted me for the cure of two buboes in the groin, which had existed there for two or three months previously; they had proceeded on to suppuration, and discharged now a thin offensive kind of matter; below one of them was a swelling, which contained pus, but deep-seated. This I afterwards opened, and let out a considerable quantity. He complained to me also of sore throat, and, upon inspection, I noticed upon the tonsil glands on each side, ulcerations decidedly characteristic of venereal sore or chancre. These ulcerations, he said, came on as soon as matter had formed in the buboes, and had continued ever since. I questioned him particularly as to his having any sore upon the penis preceding these symptoms; and he assured me most positively that he never had. I then examined the penis, but could not discover the least appearance of chancre or sore having been there; he had never before any venereal affection whatever; and the symptoms under which he now laboured, neither he, nor the medical attendant, under whose care he had been for some time, suspected to arise from such a cause, until, finding himself worse under the prescribed remedies, he was induced to procure some mercurial pills from an advertising quack in London, and, after taking one box, he found his mouth sore, and his throat considerably better.

I advised him to undergo a regular course of mercury, and in the course of a very short time, he perceived its beneficial effects. The throat became well. The glands in the groin healed, but there was still a discharge from the sore which had formed below one of them. This gradually gave way to the medicine, and, in the course of five or six weeks he perfectly recovered.

Some few years ago, I was requested by a medical student to give my opinion upon some slight ulcerations on the one side of the uvula, and upon both tonsil glands, which he suspected, from their appearance, to be incipient venereal sore throat. Upon seeing them I was decidedly of that opinion, and indeed so were others much accustomed to see practice of this kind. How they could arise, he was much at a loss to know; he had had a venereal complaint twelve months before; but he had undergone for it a regular mercurial course. The affection at that time consisted alone in a small chancre; which, as soon as he perceived, he immediately commenced a regular course of mercury; and in the course of ten days it healed, but he continued under the influence of the medicine for three weeks after. He had never before or since any venereal affection. He hesitated now a short time, to commence another mercurial course, and the disease began to extend itself rapidly; he at length consented to its adoption, and soon perceived its good effects. He persevered until the ulcerations were perfectly healed, and has remained well ever since.

A gentleman is at present under my care who has a venereal bubo in the groin; it has suppurated, and discharges a thin offensive kind of matter. Has had no affection of the throat; but when he first applied to me, the sore was extending itself rapidly. He assures me positively, that he never had any sore upon the penis, and never before any venereal affection, except some months ago a slight gonorrhœa. I have placed him under a regular mercurial course, and he is getting well very fast.

The late Mr Hunter, in his work on venereal disease, observes, "that the venereal poison may be absorbed without producing local effects;" but he farther adds, "it must be allowed, such instances are very rare; and if we were to examine the parts very carefully, or inquire of the patients very strictly, probably a small chancre might be discovered to have been the cause."

I have no reason to doubt the veracity of the statement made by the different persons whose cases I have just related. In two of them, no local affection of lues venerea could be traced; yet they had buboes and other venereal symptoms, which arise from the absorption into the constitution of the venereal poison. In the third case, the disease, it is found, had existed twelve months before; yet if mercury will cure it, a just and fair inference may, I think, be drawn, that it was then cured, (without taking otherwise into consideration the length of time which the virus must have remained inert in the system); and that this, as well as the other two cases, arose from the absorption of the poison, without its producing a local effect.

Chipping Ongar, Essex, Nov. 8th, 1811.

XI.

Case in which the Beneficial effects of Friction, as recommended by Mr GROSVENOR, *of Oxford, were strongly exemplified.* Communicated by DR DUNCAN, Senior.

Of all the new modes of treating diseases, which have of late obtained great celebrity in the practice of medicine, no one, in my opinion, is productive of more beneficial effect, than the assiduous application of friction, in the manner introduced by Mr Grosvenor, of Oxford. Some years ago my worthy friend Dr Wall, of Oxford, favoured me with a particular account of Mr Grosvenor's manner of employing friction, which had been successfully employed in the case of Dr Wall's own daughter. Since that I have frequently directed it, and, I think, in many cases with benefit. But of all the cases of which I have ever heard, that of which an account is given in the following letter, affords the most wonderful and unexpected instance of recovery by means of friction. As the letter is written by a lady of great discernment, and a most affectionate mother, I shall make no apology for requesting that you will give it a place in your Journal, in her own words.

To Dr Duncan, senior, Edinburgh.

"I doubt, my dear doctor, you will feel some surprise at now receiving a letter from an old acquaintance, after such an interval of silence; but I must confess, that my recollection of your kindness and attention to my family during our residence in Edinburgh, is so strong, that I cannot resist my desire of renewing your recollection of us—more particularly, as I have a most favourable account to give of your little patient Margaret, who got the bad knee, after the scarlatina she had, when in Albany Street. I believe the last time I wrote to you, was to take your advice for her, in 1807, from St John's in Yorkshire. During our stay in that county, Margaret got infinitely worse; the knee swelled to a great size; the lower part of the limb became proportionably wasted; her health gave way; general debility, loss of appetite, quick pulse, morning perspirations, and heightened complexion, seemed to portend the most unhappy termination.

"Mr Hey, of Leeds, a surgeon of eminence, visited her, and seemed to think very badly of the case. He recommended an immediate removal to the sea-shore, and to a warmer situation. We removed to Parkgate, in Cheshire, in May 1808—and Margaret received considerable benefit from sea air, bathing, and exercise. Her general health seemed established, and we remained there with her till late in the month of October. That winter passed tolerably with her, in Chester; but in the spring she got bad again. We brought her to Buxton, in March, and from that to Parkgate, in June, 1809; the air and water seemed to have the same beneficial effect on her general health; but she was not better of her lameness; on the contrary, the leg was so contracted, so incapable of bearing any part of the weight of her body, or, indeed, of touching the ground, that she was obliged to use a crutch; her knee was frequently bled with leeches, and tepid water poured over it, according to the directions of Dr Monro, while calomel, hemlock, lime, &c. were tried without any success. Still, however, there was *no sore;* and assured of the consequences which might arise from *the skin being broken,* I was particularly careful never to let any remedy be used, likely to produce that effect; of course there was neither blisters, caustics, nor issues. Appearances, however, indicated that sores could not long be prevented, the knee got very much discoloured, and *pointed* in several places, underneath and among the tendons on one side.

"Under these circumstances she was seen by the elder Dr Currie of this city, who mentioned to me Mr John Grosvenor, a surgeon of eminence in Oxford, as a person whom he knew to have performed some remarkable cures. I wrote to him stating Margaret's situation, and though he gave me little, or indeed no encouragement, (for he said it was in incipient cases his plan was mostly beneficial), I brought her to Oxford, December 1809. After staying with her a few weeks, and Mr Grosvenor's telling me "*he had cured as bad,*" I took a lodging for her, and left her with a confidential servant under Mr Grosvenor's care.

"The result was, that she escaped the usual spring attack, and at the end of seven months, in July following, returned to me, walking without either crutch or stick, laying her heel flat to the ground, and with but little lameness, which a constant perseverance since in his mode of treatment has *entirely* removed. She is at this moment perfectly free from lameness, or disease of any kind; that leg as large as the other, and little, or no difference in the figure of the knee.

"Friction, exercise on foot, and the occasional use of calomel, were the only remedies used, and are to be continued till she attains her full growth,—she is now in her 13th year. I know, my dear doctor, from my former experience, that you will sympathize with Mr W. and me, in the happy termination of a disease which I began to consider as incurable.

Chester, September 24th, 1811.

XII.

Observations on the occurrence of Small-pox after Cow-pox. By THOMAS CHARLES HADEN, Surgeon to the Derbyshire General Infirmary.

IT is somewhat flattering to our national vanity, that, in Great Britain, nearly the whole of those discoveries have had their birth, to which natural philosophy and medicine owe their present reputation and advancement; and while we glory in the names of Bacon, of Newton, of Priestley, and of Harvey, we feel ourselves bound to express a just indignation at the malevolence of those, whose unfounded assertions threw a cloud over the latter days of the last mentioned philosopher, and made his excellent labours the ruin of his own happiness, in place of being to him a source of wealth and of splendid reputation. Thus, then, we can appreciate the severity of that opposition, which must have borne so hard upon the mild feelings and candid modesty of Harvey; and yet, too many of us have not hesitated to play the same part towards one, whose name, in future ages, will be mentioned with the same veneration as that of his immortal prototype. Alike in their motives, in their dispositions, and in their characters; the time is not far distant, when the names of Harvey and of Jenner will become inseparable in the remembrance of an admiring posterity; for, although the former physiologist has more extensively contributed to the accuracy of our pathological reasonings, yet the direct manner in which Dr Jenner's discovery bears upon the dearest interests of humanity, will secure to his memory a veneration to be felt by all mankind.

At present, however, it is impossible not to associate with the recollection of Jenner, a feeling of shame at the neglect with which he has been treated by his ungrateful countrymen. He has, in his native land, been reviled by individuals, and though rewarded by the legislature, their inadequate boon was embittered by illiberal opposition; whilst, in the country of his hereditary enemy, statues have been raised to his honour, and the most ample respect paid to his invaluable services. But still, he has, even here, the satisfaction of knowing that his merits are appreciated properly by every thinking and unprejudiced person; and, when he contemplates the changes which his labours have produced in almost every other part of the civilized world, he must forget, for a moment, the outward mortifications he experiences at home, in the enjoyment of a feeling more productive of happiness than the most exquisite gratifications of this sublunary world.

Happily, it is becoming unnecessary to add to that evidence, which has established the efficacy of the cow-pox inoculation; but it is still useful to extend our knowledge on the subject, until we can with certainty determine the precise value of its effects upon the human constitution. The following statement, therefore, of cases which occurred in the practice of my friend Mr Cade, surgeon of Spondon, will stand in need of no apology.

For several years, the village of Burrowash had remained free from small-pox infection, in consequence of the cow-pox inoculation having been very generally practised; when Anne Wood, 10 years old, who had had the cow-pox 8 years before, came from Birmingham on November 7th 1810.

This child sickened on November 8th, continued feverish for about three days, and then broke out with the small-pox. The pustules were small, but they came to a head, and began to decline on the fourth day after the eruption.

Eight days afterwards, Sarah Wood, aged 16 years, and Charles Wood, aged 19, sickened in the same way, and had a perfectly similar complaint, whilst Robert Wood, aged 24, who had formerly had the small-pox, and Mary Wood, aged 8, who had had the cow-pox 4 years before, remained free from infection.

On November 24th, Maria Wright, aged 2, who had been nursed by one of Wood's children, and had never had the cow-pox, took the small-pox severely, and died on December 4th, which was the eleventh day after the appearance of the eruption.

In consequence of these unusual appearances, alarm was taken, and on December 2d, six other children were inoculated for the cow-pox, two of them with matter from the Vaccine Institution in London, and the remaining four with matter taken at Derby. The names of these children were, Henry Wright, aged four months, Thomas Chambers, aged 6 years, William Chambers, aged 2, Jane Chambers, aged 4, William Wright, aged 3, and James Twigg, aged 6.

In all, a healthy vesicle was produced. On December 8th, which was the seventh day after inoculation, they all continued free from fever, except Henry Wright, who broke out with the small-pox. He had much fever, the pustules were very numerous, and were of a fine sort. The vaccine pustule on his arm was suspended in its progress, continued crystalline, and only changed after December 15th, when the small-pox pustules began to turn. After this period, the vaccine vesicle went through its regular stages of inflammation, purulency, and scabbing; the scab had a dark mahogany colour. *

The remaining five went regularly on with the cow-pox, had a small degree of fever about the 8th day, and on the 12th, (December 13th), the scabs had become dark-coloured, when Thomas Chambers broke out with the small-pox. On the 13th day, (December 14th), the other four were also affected in the same way. In all five, the disease was mild, and the pustules began to decline on the 4th day after the eruption. William Wright, however, had more eruptive fever than the others, and the pocks were larger.

In addition to these, Catherine Chambers, aged 8 years, who had had the cow-pox 6 or 7 years before, and who had two perfect cicatrices on her arm, broke out with the small-pox on December 11th. She had few pustules on her arms and face, but many on her body.—They were small in size, and began also to decline on the fourth day.

There were many other children in the neighbourhood, who had had the small-pox, or cow-pox; but all these continued free from the small-pox.

It seems scarcely possible for cases to be more complete and satisfactory than these. The eruption was the same in all; as well in those children in whom the cow-pox run through its ordinary course, as those in whom it terminated so much earlier

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* After the turning of the small-pox, this child had fever for two or three days —Was this the constitutional effect produced by the cow-pox?

than is customary. It is extraordinary that so many cases should have occurred at the same time; because, although all the children who took the small-pox after the cow-pox, had been inoculated for the cow-pox, either by Mr Cade or myself, yet, this had been done at distant periods, and with different matter. The cases, therefore, become exceedingly interesting, inasmuch as they seem to prove,

1st, That the cow-pox is capable, not only of destroying, in most cases, the predisposition in the human constitution, to be affected with small-pox, but, also, in others, to modify the appearances of small-pox, to shorten its duration, and almost to change it into a new disease.

2d, That, although this modification of small-pox is mild in itself, yet it is capable of producing, in others predisposed to the disease, a small-pox similar to the common kind in its symptoms, its duration, and in its terminations.—Hence they are one and the same disease.

3d, That the modified small-pox is subject in its duration to a law, as certain as that which regulates the termination of common small-pox.

There are many other curious reflections which will naturally arise from the consideration of these cases. It would be of consequence to know, whether the modified small-pox is an invariably mild disease, or whether, occasionally, it may not assume a more formidable aspect. In these cases, it was exceedingly mild, but still the degree of eruptive fever varied in most of them; and in one it was comparatively violent, attended with eruptions of a larger size.

It was my intention to have concluded this letter with some valuable extracts relative to the small-pox and cow-pox, from Humboldt's Statistical Account of New Spain; but I find they have already been published in the Edinburgh Medical Journal, Vol. 6th, p. 323, et infra. I shall only, therefore, remark, that they seem to me to be of very considerable importance, especially, that observation respecting the small-pox, the black vomit, and other fatal disorders of those climates, that they only become epidemic at distant and stated periods. Indeed the whole of M. Humboldt's publication is well worth an attentive consideration.

Derby, June 2d, 1811.

P. S.—Since writing the above, some months ago, I have received the following letter, from my friend Mr Granger, surgeon of Burton, with a permission that it may be published in the Edinburgh Journal, if you think proper.

Dear Sir, *Burton-upon-Trent, August 26th,* 1811.

I now send you the promised account of four cases of variolous eruptions, subsequent to perfect vaccination, which occurred in this neighbourhood, about two years back, under my observation. I stated fully the particulars of these cases, on the instant, to the Royal Jennerian Society. The following are the only memoranda I have kept.

Ann Buckley of Medway, 8 years old, vaccinated by Mr Whateley about five years ago, has just had the small-pox mildly. The eruptions were smaller than common, and very soon came to a head.

William Buckley, 6 years old, was vaccinated with his sister; attacked with sickness and fever, after Ann Buckley; on the third day broke out of the small-pox.

Thomas Cole, of Medway, vaccinated three years ago, by Mr Whateley, when Buckley's children were ill, became sick and feverish. On the third day a few small eruptions took place, which disappeared in three days.

William Cole, 8 years old, vaccinated with the same matter as his brother, has had the small-pox mildly.

Mr Cole's children received the infection from a younger child, which died of inoculated small-pox, in the house.

I should mention, that when the above named children broke out of the small-pox, the disease prevailed epidemically in several villages in the vicinity of Burton, particularly at Winshill, Medway on Newhall, where the population is considerable on account of the coalery. In the greater number of instances, the disease proved fatal. It was no uncommon thing for two or three children in one family to die of the small-pox. An opportunity of putting the practice of vaccination to a more severe test, could not possibly occur. By very little exertion on my part, the distrust which many of the laborious poor entertained about the security afforded by the cow-pox, gave way; an entire stop was put to small-pox inoculation; and every individual encompassed by the epidemic (without an exception of consequence) susceptible of variolous infection, underwent the process of vaccination. The melancholy fatality of the epidemic was thus arrested.

At this period of the day, additional evidence in favour of vaccination is not needed; I shall only say, that if, among the numbers vaccinated on this occasion, an instance occurred of the small-pox virus taking effect after vaccination, I am ignorant of it.

It cannot, I think, be doubted, notwithstanding the imperfection of these memoranda, that the cases were examples of the anomaly of small-pox supervening on the cow-pox. It is a maed from receiving whatever interpretation the ingenuity of its votaries may think fit to impose. If, however, we reflect on the complex and intricate operations of animal life, the impossibility of explaining many of its principal phenomena, and the boundless latitude thence afforded to conjecture and hypothesis, we ought perhaps to consider it unreasonable to expect unanimity of sentiment on any subject, where such a variety of contradictory materials are associated together.

In the production of the more obvious phenomena of inflammation, the sanguiferous system seems, as far as we are able to judge, to be chiefly, if not solely concerned; and therefore, to ascertain the precise condition of the vessels on which these phenomena depend, necessarily forms an object of primary importance.

On this subject, two opinions have for some time prevailed, so irreconcileably opposed to each other, that to believe the one correct, is to consider the other wholly erroneous; and consequently, as our practice in inflammation must be regulated entirely by the opinion which we adopt, our decision ought to be the result of an attentive investigation of all the circumstances connected with it.

It would certainly have better promoted the search after the information I am anxious to obtain, could I have entered on the discussion, in which I am about to engage, with a mind divested completely of any prepossession in favour of a particular doctrine. But this is not at all times in one's power, nor shall I, in the present instance, attempt it. A careful consideration of all the phenomena of inflammation, as well as of the *modus operandi* of remedies, not perhaps altogether uninfluenced by those views which are the result of education, have served to impress my mind with a belief in the superiority of what may be termed the doctrine of increased action. In venturing on the field of argument, therefore, I am under the necessity of appearing as an avowed partizan, with all the prejudices and partiality which naturally belong to that character. I have not the presumption to expect, that the cause of which I am a very unworthy, and a very incompetent defender, is likely to be indebted to my efforts for any powerful support, as I lay claim to very little originality, either in point of reasoning or information; nor indeed does it stand greatly in need of either. My chief objects are to endeavour to prove the fallacy of the objections urged against the commonly received doctrine of inflammation; and to analyze, and, if possible, refute, in a detailed and connected manner, the principal arguments adduced in favour of the hypothesis by which it has been attempted to support it. I have been induced to make this attempt, because, so far from any systematic opposition to the new doctrine having, to the best of my knowledge, been yet published, an implied, or rather a direct sanction, has been bestowed upon it, in the Fifth Number of the Edinburgh Medical and Surgical Journal. When an opinion, which is completely at variance with the one most generally received, thus meets with even the partial support of those who are the reputed umpires in medical disputation, it can no longer be treated with indifference; and it consequently becomes an object of some interest to ascertain its claims to preeminence, and to determine at once which of the two merits the preference. If these observations, therefore, shall have no better effect, they will, I trust, be the means of inducing some one to come forward, and, by subverting my statements, establish the opposite theory on a firmer basis than that on which it appears to me to be constructed.

The florid appearance which an inflamed surface exhibits, at once denotes the presence of a more than usual quantity of blood in the part; and the inference which immediately suggests itself is, that the other phenomena which occur, are either dependent on, or in some way or other intimately connected with, this additional quantity. Before we can attempt to discover by what means this preternatural accumulation has taken place; in what the actual condition of the parts, to which it has given rise, consists; or in what manner the deviation from the healthy state is to be removed; our views must be directed to the whole vascular system, and more especially to the consideration of those powers which influence materially the motion of the blood. In tracing their operation, they must be regarded as affecting not only the circulation of the part itself, but also that of the whole system. It is not, however, requisite for my present purpose to treat of the various agents which are capable of acting either generally or locally, or in what manner they produce their effects; but, assuming these as understood, my intention is to examine the subject with an immediate reference to the actual condition of the vessels.

The testimony which we possess of the opinions entertained by the ancients on this subject, tends to show clearly, that they considered inflammation as a state of increased vigour and activity of the vessels. This forms so prominent a feature in all their writings, where the subject is either directly or remotely treated of, that no elaborate quotations are necessary for its confirmation. The same doctrine continued to prevail almost universally, down to a period that may be deemed, speaking comparatively, of very modern date; for although it had, in a few instances, been opposed by those who maintained that inflammation depended on diminished action or debility of the vessels, the latter opinion exercised a very limited influence over the minds of the medical profession in general. In the year 1765, (as appears from the Fifteenth Number of the Edinburgh Medical and Surgical Journal), Vacca Berlinghieri, professor at Pisa, published a theory of inflammation to this effect, in the form of mathematical propositions, demonstrations, lemmas, corollaries, and scholiums.

But he assumes as inflammation what cannot be considered as constituting that state; and even allowing that his views are correct, they apply merely to the state of the blood, without having any reference to that of the vessels; and consequently, they do not bear upon the point at issue.

About the year 1790, the doctrine of diminished action began to assume a more formidable aspect, in consequence of two ingenious dissertations on the subject, written by Dr Lubbock and Mr Allen, surgeon, and read before the Royal Medical Society of Edinburgh, but never published. Since that time it met with some feeble support from a few authors of respectability. The late Mr Latta is the only surgical writer, as far as I know, who has adopted the hypothesis; but as the method of treatment recommended by him in inflammation, is in direct violation of the very principles of the hypothesis, * his authority on this point is not entitled to the smallest notice. With the exception of Dr Fowler, who wrote an inaugural dissertation in its favour in 1793, the theory gained scarce any proselytes, and certainly no defenders of any note, from the period of Mr Latta's publication until the year 1804, when Dr Wilson of Worcester published a treatise on Febrile Diseases, in which he endeavoured to demonstrate, by experiment, the truth of this opinion, and to overturn the doctrine of increased action. Some time afterwards, † the same author published an essay on the Nature of Fever, in which he adhered to the same opinion, and attempted to prove the identity or the analogy of fever and inflammation. He has still farther pressed the publicity of these views through the medium of the Edinburgh Medical and Surgical Journal, in which he has restated at length some of his experiments; and from the result, and the reasoning founded on them, he has deduced the legitimacy of the doctrine of diminished action. As his statements ‡ embrace, I believe, the sum and substance of what has been said by those who have preceded him, I have selected what he has said on the

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* *Vide* Latta's Surgery, vol. I. p. 99.

† I am perhaps not altogether correct with regard to the order and time of these publications; but that is a matter of no consequence.

‡ Edin. Med. and Surg. Journal, No. XV.

subject, as affording the most complete and recent account that has been given of the proofs and reasoning on that side of the question. I am very far from entertaining any idea that Dr Wilson will deem these observations likely to invalidate any of the opinions which he supports. I take the liberty, however, of expressing a wish that, if ever he shall favour them with a perusal, he may not consider them as an attack made purposely on him; I disclaim any such intention. The attack, if it shall be dignified with that appellation, has been directed against the hypothesis, * through the person who has appeared as its most ostensible champion. The identifying Dr Wilson, therefore, with the hypothesis, and the frequent mention of his name, to which I shall be obliged to have recourse, are done for the sake of brevity and perspicuity. This avowal he will have the less difficulty in crediting, from the total absence of any motive of a personal nature on my part, to impugn his opinions; the respect which his character as an author demands from me; and also from the circumstance, that the opinion which he supports, no more originated with him, than does the one which I have ventured to defend, own me for its author.

For the purpose of arriving more easily at the conclusions to which his experiments lead, Dr Wilson commences his observations on the nature of inflammation, by opposing the doctrine so long maintained by the Boerhaavian school, and by many still not entirely exploded, that obstruction of the minute vessels is capable of producing the phenomena of inflammation. "Admitting," he says, "that the vessels of any part are obstructed, it does not follow that an accumulation of blood will take place in it; the blood may pass off by anastomosing branches, or the vessels may resist the distending force.' † It must be admitted, that it does not follow necessarily in every case, for the reasons mentioned by Dr W.; but these very reasons allow, by the terms in which they are expressed, that the blood may *not* pass off by these branches, and the vessels may *not* resist the distending force. The latter supposition, respecting the resistance of the vessels, involves a position which, although Dr W. takes it for granted, has not yet been explained, and falls to be discussed with more propriety hereafter. From the doctor's own reasoning, therefore, the impossibility of inflammation being produced by obstruction, does not seem to be established. He enforces his objections by the following experiment: "I passed a hot wire through the web of a frog's foot, by which the skin about the hole was shrivelled, and the vessels obstructed, no fluid of any kind being discharged. Here an obstruction was produced, surely more than equal to what can be supposed to take place in many inflammations of small extent, yet no symptom of inflammation followed, every part of the web appearing as pale as before the experiment." It may be remarked, that the part on which this experiment was performed, possessed very little sensibility, and that the powerful stimulus applied, was calculated to extinguish that small portion, both in and near the part, or at least to diminish it to such an extent, that so far from any effect being instantly produced, analogous to an inflammation of *small extent*, the consequences of the application would not be observable for some considerable time. The animal was a cold-blooded one, and perhaps its sentient powers were not the most acute. The web of the foot in all animals is imperfectly organized, consisting of a species of condensed cellular membrane, endowed with very little sensibility, at least in the first instance, and therefore it was scarcely adapted to exhibit the delicate process which he wished to observe. Whether inflammation would have taken place, had sufficient time been allowed to elapse, remains to be seen, as Dr W. does not appear to have continued his observations much beyond the time occupied in passing the wire. Supposing, however, that the part was in every respect suitable, Dr W. must either admit that he did not wait for a sufficient length of time, or he must be prepared to prove, that the stimulus of a hot iron cannot produce inflammation of a part of the body possessing sensibility. Dr W. is not to be told, that the application of the most powerful stimuli to the less acutely sensible parts, as the bones, ligaments, tendons, &c. does not for a time produce inflammation; yet because they are not immediately excitable, would any one conclude that they shall not become the seat of inflammation of the most violent description? Nay, it is extremely doubtful, whether, in the short time allotted for the performance of the experiment, it would be possible to trace the size, progress and establishment of inflammatory action in any part of the body where the texture of the part had been, as it was on this occasion, completely destroyed. It may be observed, in this place, though perhaps somewhat prematurely, that it is incumbent on Dr W. to show why, in this case, inflammation did not take place, according to the principles of his own hypothesis; for here the destruction of the tone and structure of the vessels was in a great measure accomplished by the intensity of the stimulus. That the obstruction of a few minute vessels is generally inadequate to the production of inflammation, no person, I believe, at the present day, will be disposed to deny; but that a sufficient degree of this power may effect the purpose, Dr W. must, I apprehend, find some difficulty in disproving. The effect of pressure, the consequence of applying a ligature to a part, the application of cold, and many other phenomena, must be satisfactorily explained upon different principles, before this position can be rendered incontrovertible. Besides, it will appear afterwards, from certain admissions of Dr W., in the course of his reasoning, that obstruction not only may, but actually does, sometimes produce inflammation. The preceding experiment is, therefore, incomplete in itself, and inconclusive on the particular point intended to be illustrated.

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* I have used the words doctrine, theory, and hypothesis indiscriminately; although, of course, essentially different in signification, they may be employed here without creating any ambiguity, and will tend to save repetition.

† Vide Edin. Med. and Surg. Journal, No. xv. p. 291.

Dr W. then says, that "the opinion that inflammation arises from an increased action of the vessels of the part seems to have been an inference from the increased temperature of an inflamed part;" and in proof of this, he cites the following passage from Boerhaave: "A renixu, pulsu, compactu, vasorumque adhuc meabilium angustatione a tumore obstructorum, attritus fit ingens partium liquidi inter se, in solidum, solidi in illas, inde calor et cestus." Aph. Boerhaav. 382. That the idea of increased action may have originated in the increased temperature of a part, is undoubtedly as probable as any other supposition; but that it should have done so, because Boerhaave may have been of that opinion, is not quite so obvious. The doctrine of increased action, or what was (though perhaps not expressed in the same terms) equivalent to it, had been the doctrine of the schools, and of almost all medical writers, long prior to the period in which Boerhaave flourished. Moreover, it is perfectly evident that, in the sentence quoted by Dr W., Boerhaave, from whom the doctrine of lentor of the fluids either took its origin, or met with its chief support, endeavours to explain the phenomena according to his own theory, to which he makes them always subservient, and expressly says, as must appear from the sentence itself, that the heat is the immediate consequence of the friction of the fluids and solids on each other, not the cause of the increased action of the vessels.

Dr W., in the next paragraph, observes: "But the velocity of the blood cannot, it is evident, be partially increased, except by an increased action of the vessels of the part." He then quotes the opinion of Cullen, that "the phenomena of inflammation all concur in showing that *there is an increased impetus of the blood in the part affected;* and as, at the same time, the action of the heart is not always evidently increased, there is reason to presume, that the increased impetus of the blood on the particular part, is owing especially to the increased action of the vessels of that part itself." He then goes on to state the opinion of Mr Moore, who says, that, besides the greater energy of the vessels, "*the blood is observed to circulate with far greater velocity through an inflamed, than through an uninflamed part;*" and, immediately after, the Doctor expresses his surprise "that physicians should have so decidedly formed their opinion respecting the state of the circulation in an inflamed part, when it is certain that none had been at the trouble to examine it." From the passages, however, which he has quoted from these authors, he seems scarcely warranted to make this last assertion. Mr Moore is at least entitled to have it believed that he, or some other person, had seen what he describes, when he says that "the blood is *observed* to circulate," &c. Dr Cullen deduced his opinion from a consideration of *all* the phenomena of inflammation. Whether he considered *increased impetus* and *increased velocity* as synonymous, I shall not pretend to determine; but as the former may, I presume, exist without increased velocity, and as the latter term does not, as far as I can discover, appear to be included in Dr Cullen's views of inflammation, the inference, I think, is fair, that it does not necessarily form any part of them.

In order to prove that increased action of the vessels of a part does not occasion inflammation, Dr W. makes another experiment on the web of a frog's foot: "I wetted the foot with distilled spirits, and, in a few seconds, observed the blood in all the vessels of the web moved with an increased velocity, which, as I constantly kept the web moistened with spirits, continued as long as I examined it, about ten minutes, or a quarter of an hour. But, during no part of the time, could I observe the slightest symptom of inflammation, either with or without the microscope. The vessels, instead of appearing redder and more turgid, were evidently paler and smaller than before the application of the spirits. I still farther increased the velocity of the circulation by throwing on it the concentrated rays of the sun from the speculum of a microscope, and still with the same effect." Now this is a result which, according to the laws of arterial action, might, I suspect, have been anticipated without necessarily involving the credit of the opposite hypothesis. It is impossible to form any accurate notion from these experiments, of the degree of sensibility which the web of a frog's foot possesses in relation to alcohol. This fluid, though a very powerful stimulus when applied to particular parts of the human body, yet when brought into contact with the palms of the hands, or the soles of the feet, scarcely produces any effect on them. If then it be, as I should suppose it is, a very moderate stimulus with respect to the foot of the frog, the phenomena that took place in Dr Wilson's experiment may be easily explained without establishing the correctness of his deductions. The primary operation of the gentle stimulus must be to rouse the vessels to some degree of preternatural action, the immediate consequence of which would be, that the motion of the blood in them would be accelerated. Their power of transmission remaining undiminished, while the determination from behind was not yet increased beyond the natural standard, the vessels would thus have to act with an increased power on a quantity of blood at first not greater than their usual allowance, and by the continued augmentation of power rendered always less, and, consequently, would be enabled to transmit the blood with increasing rapidity;—and hence the paleness remarked by Dr Wilson. But even admitting that the alcohol in this case possessed considerable stimulant power, or even that the rays of the sun from the *speculum* of a microscope were capable of producing the effect, the same objection will apply with equal force now as formerly, viz. that the stimulus in this case was not applied sufficiently long to cause any of the external marks of inflammation to appear, or even to occasion a trifling determination of blood to the part. Had time been allowed, the genuine characteristics of inflammation would, in all probability, have exhibited themselves; and Dr W. would then have had an opportunity of observing whether the action of the vessels was energetic or the contrary. He had certainly lost sight at that moment of the ordinary phenomena of inflammation, when he supposed that there was any analogy between the application of stimuli for " ten minutes, " or even " a quarter of an hour, " and the course which inflammation commonly pursues during its commencement and progress. More than a few minutes, or even a few hours, are generally requisite; and several previous processes must be gone through, as indicated by fulness, tension, and some degree of pain, before the distinguishing or outward marks of inflammation begin to show themselves. It therefore does not follow unavoidably, that, because he did not choose to wait the proper time, the action of the vessels must be diminished during inflammation. But, independently of all reasoning, to deduce a conclusion of such importance from an isolated experiment of this kind, performed under circumstances so unfavourable, would, whatever hypothesis we adopt, go far to deny the power of accommodation which the system possesses. Every one knows that even a preternatural quantity, or a deficiency of blood, may exist in a part for some time, at least much longer than that occupied by Dr W.'s experiment, without being necessarily accompanied or even followed by inflammation or its opposite condition. There would seem to be a certain range both with respect to the action of the vessels and the quantity of blood, within which the system, or a part, has the power of adapting itself to the existing circumstances, without being liable to assume that state which constitutes disease. Upon this depends the faculty which the human body has bestowed on it, of resisting, to a certain extent, the influence of all agents of a morbific tendency.

Dr W. draws a very convenient, though a very just conclusion immediately afterwards, that " an excessive application of the stimuli employed * would unquestionably have deprived the vessels of their excitability, and then the phenomena must have been different. " But what reason he had for supposing that the vessels would pass from the state of vigorous action to that of complete exhaustion, without manifesting any intermediate appearance, I am wholly at a loss to perceive.

The next experiment which Dr W. details for the purpose of ascertaining " the state of the circulation in an inflamed part, independently of any reasoning, " does not admit of being quoted here, from the account being given at considerable length. I must, therefore, refer the reader to the third volume of Dr Wilson's Treatise on Febrile Diseases, or to the Number of the Edinburgh Medical and Surgical Journal already mentioned. It is apparent, in the very first paragraph, that from his " not knowing how " the inflammation had been excited, he could not be aware how long it had existed; and therefore, the experiment itself, and, of course, the conclusions which he deduces from it, amount to nothing. But, taking it as it stands, it is expressed in such ambiguous terms, that nothing certain can be inferred from it. It is extremely probable, that where the red colour of the part was greatest, the vessels most dilated, and the motion of the blood had ceased altogether, the inflammation had already passed its height, or perhaps no longer existed; the motion of the blood would necessarily be slowest, and its impetus least—for the vessels had then been reduced to a state of exhaustion from the previous violent action. With regard to the distension of those vessels which, in the healthy state, admit only the colourless parts of the blood, I may remark, that perhaps too much stress has been laid on it by most authors. In having recourse to the aid of this phenomenon to account for the red colour of an inflamed part in the first instance, a cause is assigned which is unphilosophical, because it is not necessary, as the effect may be explained upon the principle of the enlargement of the vessels transmitting the

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* I have made a slight alteration in the words here, but not in the sense.

coloured parts of the blood, without any additional set of vessels; and this will, in some degree, appear from the subsequent experiments of Dr Wilson himself. We do not, I should suppose, refer the suffusion of the face, which takes place in the act of blushing, to any propulsion of the blood into vessels that do not usually transmit it; and yet the red colour here is as great and greater than some degrees of inflammation. There is scarcely a part of the body that is not provided with innumerable blood-vessels: the slightest scratch or incision renders this abundantly manifest, and injection of parts after death show them to be made up almost entirely of blood-vessels. It is only necessary to imagine the addition of no very considerable portion of blood to that which these vessels already circulate, in order to explain the greater redness of an inflamed part. From the interstices of the red vessels appearing more opaque, the Doctor infers the probability of an "enlargement of innumerable small vessels, still too small to admit the grosser parts of the blood." As it is obvious that the opacity of these vessels would not be increased by their being distended with a colourless fluid, but, on the contrary, that they must have their transparency augmented by that means, the Doctor must here admit the enlargement of innumerable small vessels which are conveying red blood, as the cause of colour. Now, although these vessels might not usually admit the grosser parts of the blood, they might yet receive a sufficient portion of colouring matter to account for the phenomena already mentioned. In his endeavours to stimulate the vessels by the means formerly detailed, and thence remove the inflammation according to his own principles, he merely accomplishes what any one would be apt to expect under such circumstances. The vessels were exhausted by preternatural action beyond the power of being acted on by their natural stimulus, the blood: there still, however, remained in them a portion of excitability sufficient to render them susceptible to the impression of a powerful stimulus of a different kind, externally applied; in short, their vitality was not wholly extinct. This stimulus then being applied, the vessels are roused to increased exertion, by which their contents are propelled, their parietes made to approach one another, their diameters are consequently diminished, and the excessive redness made to disappear. This action, continued for a short time, being limited to the part affected, must soon free it from the superfluous blood, and, provided the stimulus be withdrawn before the action can be communicated to the vessels nearer the heart, which circumstance would renew the congestion, the swelling and redness must vanish of course. But if the application of this stimulus be persevered in until the immoderate action be imparted to the vessels in the vicinity, nearer the heart, acting above or even at the natural standard, such a propulsion of the blood will take place in the already exhausted vessels, as no efforts of the latter can possibly enable them to withstand, they having been previously insensible to the influence of this stimulus. Nothing then could rouse them but a degree of external stimulus still higher than the alcohol for the sun's rays, which, in all likelihood, would destroy their excitability and induce gangrene of the part. Indeed, it is not improbable that, had the Doctor continued the experiment long enough, this very result would have happened. He merely persisted until a single effect had been produced. It is farther evident, that, from his not having been able, by means of these powerful applications, to restore certain parts of the web, that the inflammation must have proceeded to a point from which recovery by resolution was impracticable. The experiment, therefore, upon the whole, determines nothing, in my judgment, against the opinion which he controverts, nor does he himself seem satisfied with the progress of it. In order, however, to remove all doubts on the subject, he repeated it, and had the result carefully watched by a person who was altogether unacquainted with the object or tendency of the experiment.

The animal selected for this purpose was a small fish, (the lampern); and here I would beg permission to observe, that the choice of such an animal appears to be peculiarly objectionable. Exposure to the air proves, in a very short time, fatal to most kinds of fish, and it must, therefore, render them particularly unfit subjects for experiments of this description. Dr W. even remarks, that "it produces a degree of inflammation evident to the naked eye in the fins and tail of the lampern." We may thence form some idea of what the effect must have been on the whole system. It would seem nearly as preposterous to plunge in water an animal accustomed to live in atmospheric air, and then institute experiments for the purpose of ascertaining phenomena which are compatible only with the due performance of respiration. The whole of this experiment therefore is faulty, and it is almost superfluous to endeavour to refute it. But as Dr W. appears to attach to it considerable importance, it may be proper to inquire farther into its merits, upon the supposition that the objections which I have stated have been obviated.

"On viewing," says he, "the fins of the fish through the microscope, we observed the circulation become more languid, and the vessels enlarge as the inflammation came on. The motion of the blood in the most inflamed vessels at length ceased altogether." Who can deny that such would be the result? But has this any thing to do with the action of the vessels?

"By gentle friction, and applying distilled spirits, we repeatedly succeeded in accelerating, and even renewing the motion of the blood; and, in proportion to the velocity of the circulation, the vessels became evidently paler, the deeper red returning as the circulation became more languid." I have already endeavoured to show in what manner these phenomena must have taken place, and therefore I shall not trouble the reader by any repetition.

"On roughly irritating," he continues, "a part of the fin where there was no inflammation, the part became pale, and the circulation as rapid as natural; the motion of the blood was for a second or two wholly interrupted (Mr Boraston observed the part while I irritated it), the force I used having compressed the vessels. The *vis a tergo*, however, soon forced the blood into them; and this experiment having been repeated several times,"* it was not to be wondered at, that Mr Boraston and he "saw the now debilitated vessels of the parts which had been irritated, gradually dilated by the blood propelled into them," after he had made use of such a degree of force as to compress them, and stop the motion of the blood, and in one instance even to occasion extravasation, thereby injuring their organization, and weakening them so much, as to allow an easy ingress of the blood, and to any extent which the propelling power might be capable of effecting. This process was continued "till the *vessels* having acquired *many times their former dimension*, the parts appeared *highly inflamed.*" Here, then, we have the circumstance of simple distension or enlargement, capable, without any additional vessels, of giving the red colour to an inflamed part. This is worthy of notice, as it proves distinctly, that propulsion of the blood into the colourless vessels, is not necessary to produce the effect. It may also be observed, *en passant*, that the interruption to the course of the blood, which took place in consequence of the compression of the vessels, gave rise to the propulsion into them of the blood, or it caused the increase of the *vis a tergo;* and that hence, obstruction is sometimes capable of producing inflammation (even according to the new hypothesis), which, it will be remembered, Dr W. set out with denying.

In order to do away any objections of which he anticipates the probability, from the experiments having been performed on cold-blooded animals, he gives an account of an experiment made on a warm-blooded animal, which, as he thinks it decisive of the question, I shall examine minutely.

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* For the minute detail of these experiments, I must again refer to the work formerly pointed out.

Having failed in distinguishing the circulation in the ear of a very young white rabbit, he "made a small opening *through the skin and muscles of the abdomen, through which, by the struggles of the animal, a portion of the intestines and mesentery were soon protruded.*" * The first objection which occurs to this experiment, relates to the manner in which it was performed. He applied the stimulus himself, while the Rev. Mr Boraston observed the effects. Now, with all due deference to the latter gentleman, this is what I should be disposed to call taking the result of an experiment at second-hand. No one can presume to doubt that Mr Boraston reported truly, and, as far as he was able, correctly, what he observed; but the investigation of phenomena of this kind, is a matter so foreign, in general, to the habit of persons of his order, that it need not be considered any impeachment of his talents and observation, to say that he was not so competent to appreciate all these delicate operations, as a person more familiar with the subject. Admitting, however, that he was fully competent, I would say, that these experiments cannot be performed with the same accuracy by two individuals as by one. There are circumstances which might materially modify the views of one applying the stimulus, and at the same time observing the effects, which cannot be supposed to influence the mind of him who performs a separate part, without knowing for what purpose it is intended. Making every allowance, therefore, for the advantage which the experiment derived from the unprejudiced observation of Mr B., it must, I apprehend, be admitted that it was incomplete. But taking it as a satisfactorily performed experiment in every respect, I shall proceed to consider it on its own grounds; and I trust I shall make it appear as incompetent to establish Dr Wilson's opinion as any of the former.

The violence used in this experiment would, of itself, almost destroy its influence as an argument in favour of the doctrine of debility. The stimulus here applied in the very act of preparing for the experiment, was by much too powerful to insure any accuracy in the result, and produced great part of that debility which ought to have been the consequence of the inflammation during the process employed in the experiment. Although protrusions of the intestines do sometimes occur without being followed by any very bad consequences, yet it can scarcely be doubted that the violent exposure of the abdominal contents may frequently give rise to inflammation. If this be the case, we must consider such a part as the mesentery but ill adapted for exhibiting the phenomena of inflammation. Mr Boraston in his report says, "*after a few minutes exposure to the air*, the vessels became *visibly enlarged.*" Besides, there is no parity, nor even similarity, between the condition of an animal under the influence of terror and excruciating pain, and that of the human body, previous to, or during an attack of inflammation; nor are we competent to appreciate correctly the effects which may result from this difference of condition. Trials may be made on animals when suffering from fear or torture, in order to determine some general principle; but for the purpose of tracing accurately the nicer features of morbid action, these mental powers must have as little to do with the experiment as possible. Upon these simple grounds, therefore, this experiment of Dr W. might be disregarded, as altogether inconclusive towards invalidating one hypothesis, or establishing another. I have no intention, however, of availing myself of this mode of setting it aside, but shall endeavour to represent, from the report itself, in what respect the experiment appears to me to be defective.

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* I have taken the liberty of occasionally altering the text of Dr Wilson, so far as to put in *italics* some of his expressions, to which I wish to direct the reader's particular attention.

In consequence of simple exposure of a portion of the *mesentery* to the air, in the first instance, "he perceived the globules of the blood moving along with great rapidity, but not in sufficient quantity to give a *red* colour to the *vessels.*" Query, How could he distinguish the motion of the *globules* of the *blood*, without, at the same time, discerning the *red colour* of the *vessels* which transmitted them? "After a few minutes exposure to the air," that is, after a few minutes application of a very highly exciting power, (Dr W., I presume, all the while "*gently irritating* the parts"); and after the increased action by this power had been communicated in some degree to the vessels nearer the heart, "the vessels" he says "became visibly enlarged, and in some parts assumed a *reddish* colour, while the velocity of the blood was proportionately diminished." This is almost equivalent to his having said,—The vessels having been debilitated, in consequence of the violent stimulus previously applied in the very act of making the experiment, necessarily yielded to the stream, which, after the application of the stronger stimulus, ceased to stimulate them powerfully; it became to them merely a distending fluid, which they had not the power to resist; and redness and stagnation of the blood were the consequences. This is still farther corroborated by what follows: "As soon as a part of the mesentery, which lay within the field of observation, and appeared almost colourless, was irritated with the point of a small pair of forceps, a red spot appeared;" showing, that the vessels had been previously roused to action by a high stimulus, which had perhaps expelled the blood; but on the irritation being made by the forceps, they were so violently excited, as either to be exhausted altogether, or the action was communicated to the neighbouring vessels, by which means a quantity of blood was propelled into them, which they were unable to resist, and consequently received it. "In a few seconds," he proceeds, "it increased in size; the adjacent parts of the vessels were distended; and the current of *blood* becoming less rapid, was for some distance slightly tinged with a *red colour.* This enlargement of the vessels gradually extended; the circulation at this time was extremely languid, and at length was not discoverable at all." There is evidently an ambiguity in the former part of the above quotation; at any rate, I do not easily understand what idea the reporter intends to convey in this particular case, by the *distension* of the *adjacent parts* of the *vessels*, in relation to the spot; nor am I able to affix any definite meaning to the expression of the current of *blood* being slightly *tinged* with a *red* colour. I have always been led to believe that there is no fluid in the human body recognized as blood, that possesses any other colour than red. This inaccuracy of expression is one of the consequences that might naturally have been expected from having had the experiment performed in the manner it was done. That the enlargement of the vessels would take place, under the circumstances just pointed out, and that the circulation would become extremely languid in consequence of it, and would soon cease, and gangrene supervene, is precisely what we should have looked for.

If these observations on Dr Wilson's experiments be founded on fact or reason, it will appear that the latter are inadequate to the establishment of his hypothesis; and hence, the conclusion which he draws from them can scarcely be admitted, namely, that "the state of the capillaries of an inflamed part, is that of preternatural distension and debility."

He goes on: "The state of the larger vessels may be ascertained without the aid of the microscope. Unassisted by glasses, we readily perceive that they do not suffer a similar distension, and their increased pulsation sufficiently evinces their increased action." That the larger vessels in the neighbourhood have their action increased, is easily understood; but that it is so in contradiction to the diminished action of the extreme or minute branches, does not appear to be so clearly made out. That their increased pulsation can be more easily detected, even without the aid of optical instruments, is no proof that it exceeds in point of vigour the action of the extreme vessels at some period or another of the inflammation. Their inferior distension is obviously owing to their partaking more sparingly of, or being less immediately affected by, that resistance which the blood meets with in its passage through the smaller arteries, and which, with the extra quantity sent, is the cause of the accumulation. Besides, this difference in the pulsation between the larger arteries, and the minute vessels of a part *really* in a state of inflammation, has not been demonstrated by experiment. It has been merely inferred from the greater facility of distinguishing the pulsation in the former than in the latter. The phenomena of inflammation are in direct contradiction to any such exclusive increased pulsation of the larger vessels; for the whole of the inflamed part is found to participate in it. The reason why it is not so distinctly perceptible, seems to be, that the quantum of pulsation is so completely expended or subdivided among the infinite ramifications of the arteries, as not to be distinctly referable to any individual branch or set of vessels. It is therefore to a certain extent lost, and the general pulsation of the part is improperly ascribed to the larger vessels. In confirmation of the increased pulsation of the extreme vessels, I may point out the appearances which present themselves during the inflammatory stage of cow-pox, which affords an example of pure superficial inflammation. The phenomena of this disease, which particularly illustrate the point in question, are easily discernible by the naked eye. About the period when the areola has been completely formed, and the inflammation has reached its height, we can distinctly perceive the pulsation of the extreme vessels, marked by the alternate paleness and redness of the part which each systole and diastole of the vessels occasions. It cannot be alleged that the larger vessels are alone concerned in this; as, however much their pulsation might affect the alternate rising and subsiding of the inflamed part, it could not materially affect the colour. Moreover, in this disease the inflamed part is more accurately defined than in most others, which in some degree implies, that the larger vessels in the neighbourhood are very little, if at all engaged. It can scarcely be believed also, that in this, which presents as perfect a specimen of inflammation as may be, in which the vessels are, according to the doctrine of debility, supposed to be gorged with blood, and in a state of distension, any change of colour could take place from an increased pulsation of the large vessels in the immediate vicinity.

That the larger vessels are not affected in the same manner as the smaller, after the inflammation has continued for some time, is just such a result as might be anticipated in those experiments by Dr W. on inflammation, on a most trifling scale. The increased action of the vessels, after it has existed for a considerable period, or even to a severe extent for a short time, produces such a degree of debility, as to render them unfit to perform their functions; and in a short time they cease, or nearly cease to act. As the part cannot long remain in such a state, a termination to this process takes place; the impediments to the circulation are removed by the natural powers, or by the assistance of art; and the *vis a tergo* is soon brought down to the natural standard. But if the part remain for any length of time in this condition, or, what amounts perhaps to the same thing, if the inflammation be of considerable extent, there is nothing to prevent the larger branches from being successively reduced to the same state of debility, and so onwards to the heart; and we accordingly find, that where any of these circumstances are present to a very great degree, the increased action, and (if not counteracted) the debility, are soon communicated to the fountain of life. It should always be held in remembrance too, that the size of the vessels is merely relative, and that the most extreme ramification is small, only in relation to one nearer the heart, and this again to the one next in order. Thus, the facial or temporal arteries may be as small with respect to the carotid, as is the most minute branch with regard to these arteries.

It may be noticed in this place, that if inflammation were in general terminable in the short space of time Dr W. allows, that is, if the vessels were deprived in a great measure of their excitability, which they must be if they cease to act, and remain any time with the blood stagnating in them, there is no latitude allowed, and inflammation would in every case be comparatively of little or no duration. We should have no continuance for several days of almost the same degree of redness, pain, heat, and swelling in variola vaccina. A common phlegmon, the moment that the usual routine of these characteristic appearances had been established, should dissipate, or run immediately to suppuration or gangrene; whereas, we generally observe these phenomena remain for some time with little perceptible variation; which can only happen from the vessels continuing to possess a considerable portion of vigour, which, as soon as it has been expended, (or from some other cause, which we are unable to ascertain), a new process of one kind or another commences, entirely different from that which was present during the inflammation.

Whether the remarks, I have thus taken the liberty of offering on the experiments of Dr Wilson, and the reasoning founded on them, be applicable or not, it must at all events appear that the experiments themselves have been conducted on a scale by far too insignificant for the decision of a point of so much importance in pathology, as the doctrine of inflammation.

I shall, with your approbation, continue, in a succeeding Number, the examination of the remaining parts of the subject; viz. "the explanation of the phenomena of inflammation, the *modus operandi* of its causes, and of the means which relieve it," and also "the analogy of the phenomena of inflammation and fever."

H. E.

MEDICAL EXTRACTS. No. VII.

HUMBOLDT'S *Political State of New Spain, and* HUMBOLDT *and* BONPLAND'S *Plantæ Equinoctiales.*

THE arrival of a second volume of the splendid work of these indefatigable travellers, enables us to lay before our readers some curious information respecting the fever which reigns epidemically on the eastern coast of New Spain.

Vera Cruz is considered as the chief seat of the *vomito*, which is certainly the same disease with the yellow fever that has afflicted the inhabitants of the United States of America since 1793. Clavigero and other writers affirm, that it occurred for the first time in 1725; but M. Humboldt is of opinion, that yellow fever has occurred sporadically, whenever persons born in a cold climate have been exposed, in the torrid zone, to air loaded with *miasmata*. In the sixteenth and seventeenth centuries, the mortality was probably much less than afterwards: 1st, Because the tropical part of America was only visited by the Portuguese and Spaniards, whose constitutions are less hurt by great heat than the inhabitants of more northern countries; 2d, The early colonists of the West Indies were not collected into such populous towns; 3d, Because, after the discovery of the American continent, the Spaniards were less attracted by commerce to the warm and humid shores, and preferred the more temperate elevated plains of the interior. Panama and Nombre de Dios were at first the only ports in which, on certain occasions, there was a considerable concourse of strangers; and, as early as 1535, the former was a dangerous residence for Europeans, and the latter was abandoned in 1584. We must not confound the period when a disease was first described, with the date of its first appearance. The most ancient description of yellow fever, is by John Ferreyra de Rosa, a Portuguese physician, who observed the epidemic which prevailed at Olinda in the Brazils from 1687 to 1694, shortly after the Portuguese army had conquered Fernambuco. In 1691, it appeared in Barbadoes, and was called Kendall's fever; but there was no proof of its having been imported from Fernambuco. Ulloa reports, from the information of the natives, that the *vomito prieto* was not known at St Marthe and Carthagena before 1729-30, or at Guayaquil before 1740.

The black vomit has never yet been observed on the west coast of New Spain. The inhabitants of the sea-shore, from the mouth of the Papagallo to Saint Blas, are subject to gastric, which often degenerates into adynamic fever; and it may be stated, that a bilious constitution reigns almost continually in those plains, which, though arid and burning, are intersected by marshes, the resort of the crocodile. The yellow fever, and we request the attention of our readers to the fact, is still unknown even at Acapulco, which Humboldt describes as one of the most unhealthy situations of the New World; where the heat is more oppressive, and the air more stagnating, than at Vera Cruz; where the inhabitants, for a great part of the year, do not see the sun, except through a stratum of olive-coloured vapour, not affecting the hygrometer; and where heaps of fish putrefying, exhale vapours which are considered as the chief cause of the bilious putrid fevers which reign upon that coast, and which, with cholera morbus, carry off numbers of the Mexicans who descend from the high table-lands to purchase goods on the arrival of the galleons. So favourable does the situation of Acapulco appear to Humboldt for the development of yellow fever, that he attempts to account for its absence. "Perhaps, if this port, instead of being frequented by ships from Manilla, Guayaquil, and other places of the torrid zone, received ships from Chili and the north-west coast of America; if it were visited at the same time by a greater number of Europeans or of the highland Mexicans; the bilious fever would soon degenerate into yellow fever, and the germ of this last disease would develop itself in a still more fatal manner than at Vera Cruz." Our readers will probably recollect Dr Mitchell's theory of *septon*, and his illustration of it, by ascribing the healthiness of all limestone countries to the absorption of the septic acid. Of the falsity of this hypothesis, Gibraltar has furnished an incontrovertible proof, and the great lime-kilns of Acapulco afford another; still, however, such is the political influence of Dr Mitchell's theory, that on Humboldt's arrival at Philadelphia from the West Indies, the hatchways were gravely painted with lime-water to absorb the *septon* which was supposed to be aboard the vessel;—the poor Spanish sailors, in their ignorance, naturally enough concluded, that it was some magical operation, from which such a disproportionate effect as the destruction of contagion was expected.

From the uniformity of the heat during the year at Acapulco, Humboldt dreads, that if ever the yellow fever is developed there, it will continue during the whole year, as in other situations where the temperature varies only two or three degrees during the year.

It is a mistake that the yellow fever never appears in the southern hemisphere. It, in fact, first attacked a number of Europeans at Olinda, in the Brazils; it prevailed at Guayaquil in 1740; and in the beginning of this century, at Monte Video, so celebrated for the salubrity of its climate. During the last fifty years, the yellow fever has not appeared upon the coast of the Pacific Ocean, except at Panama; and there, as at Callao, the commencement of a great epidemic is often marked by the arrival of some ships from Chili; not that they imported the disease from a country where it never existed, but because its inhabitants, coming from the healthiest country in the world, experience the same fatal effects of a sultry air, loaded with putrid emanations, as the inhabitants of the north.

On the coast of Mexico, an intimate connexion is observed between the progress of disease and the temperature of the air. At Vera Cruz there are only two seasons; that of the north-winds, which blow from the autumnal to the vernal equinox, and of the south-east, which blows pretty regularly from March to September. The *vomito* does not commence, generally, till the medium heat is 75° Fahr. and is, therefore, seldom seen in December, January, and February; and although May is warmer than September and October, its ravages are most dreadful in these latter months, because a certain duration seems necessary to develop its full force. Thus, when it has been very violent in summer, it continues more or less during winter; but when it has been mild in summer, it ceases altogether: also, the rain which lasts from June to September, cannot be without influence. The commencement and termination of the rainy season are most to be dreaded.

M. Humboldt is of opinion, that the *vomito* is not *naturally* contagious, but that it is not inconsistent with other pathological phenomena for it to become so, from the influence of climate and seasons, the accumulation of sick, and individual susceptibility. Thus, between the tropics, *e. g.* at Vera Cruz, the *vomito* is universally allowed to be *not* contagious; while, in the more temperate climate of Europe, its contagious nature was as indisputably proved, by the escape of individuals in the very focus of the disease, who secluded themselves: and in the intermediate climate of North America, its contagious nature has always been the subject of violent controversy. In tropical situations, a second attack of yellow fever is rare, at Vera Cruz unknown, but in the United States it is not uncommon.

Near Vera Cruz, the *vomito* never occurs higher up than 3080 feet above the level of the sea, which is exactly the limit below which the Mexican oaks cease to grow.

It is remarkable, that persons born and brought up in Vera Cruz, are not *there* subject to the disease. The same is true at Havannah, with regard to its inhabitants; and yet the natives of Havannah are sometimes attacked with yellow fever when they visit Vera Cruz, in August or September; while, on the contrary, natives of Vera Cruz have died of yellow fever at Havannah, Jamaica, and the United States.

It is also remarkable, that the natives of equinoctial countries, such as Vera Cruz and Havannah, are not susceptible of yellow fever in their own country, while, in the more temperate climates of North America, and Old Spain, the natives suffer equally with strangers. The whites and *metis*, who inhabit the elevated interior of Mexico, especially the muleteers and recruits, suffer more from yellow fever than strangers who arrive by sea, probably from experiencing a more sudden change of temperature.

In the most sickly season, the shortest stay in Vera Cruz is sufficient to excite the disease in strangers. Inhabitants of the city of Mexico going to Europe, generally remain at Xalapa until the very moment of the vessel sailing; set out in the middle of the night, and are carried through Vera Cruz in a litter to the boat waiting for them at the Mole; and yet these often die of yellow fever in a few days: And in like manner Europeans, who, on their arrival, find litters prepared to carry them up to Perote, do not always escape.

At Vera Cruz, the yellow fever generally lasts longer than six or seven days; and deaths in the course of 30 or 40 hours are very rare; whereas in Old Spain, cases have terminated fatally in 6 or 7 hours. The mortality is always greatest, when several ships of war, and many merchant vessels arrive at the same time in summer: thus the cruel epidemic of 1794, followed upon the arrival of three men of war.

Although the *vomito* at first indicates an asthenic diathesis, blood-letting is considered dangerous at Vera Cruz, the passage from synocha to typhus is so rapid. In the commencement of the disease, minoratives, bathing, iced water, sorbets, and other debilitating remedies are preferred; but when, to speak in the language of Brown, whose system, it appears, has excited more enthusiasm in Mexico, than in any part of Europe, the indirect debility manifests itself, the most powerful stimuli are given with great success, such as more than an hundred drops of sulphuric ether, and 60 or 70 drops of laudanum, every hour. Cinchona has not been so successful in Vera Cruz, as in the West Indies and Spain, and the mercurial treatment, though frequently tried, has been very generally abandoned. Frictions with olive oil have been more successful.

The yellow fever appears at distant but irregular periods. The epidemic of 1762, is the first on record, which, however, does not go back more than half a century. It continued to appear every year until 1775, after which it did not return till 1794, although during all the intermediate years, the concourse of foreign sailors was very great. Since 1794, it has prevailed whenever the north trade-wind ceases to blow. Meteorological observations have, as yet, thrown no light upon these periodical epidemics.

Angustura. Bonplandia trifoliata.

We are always pleased when the discovery of the source of any articles of the Materia Medica, lessens our ignorance of the instruments of our art. The angustura bark, since its introduction into medicine, has given rise to many false conjectures. It has been ascribed to the brucea ferruginea, which grows in Abyssinia, and to the magnolia glauca, which is not found in any part of South America. Humboldt and Bonpland were lucky enough to meet with it at St Thomas, in New Guayana, in June 1800. They perceived that it belonged to an undescribed genus; and having sent a specimen of it to Professor Willdenow of Berlin, he described it in the Memoirs of the Berlin Academy for 1802, and named it, in honour of its discoverer, Bonplandia; which name has been retained by our travellers in their magnificent work, and may therefore be considered as established. From the *Plantæ Equinoctiales*, Vol. II. p. 59, we quote the following description:

BONPLANDIA. Pentandria monogynia, *Lin.* Ordo naturalis, Quassia, *Juss.*

Character genericus.

(*Willd.* Monogr. in Act. Acad. Berolin. ann. 1802.—p. 24.)

Calyx: perianthium monophyllum, campanulatum, persistens, tomentosum, laciniis ovatis, obtusis. Corolla quinquepetala, tubulosa, petalis lanceolatis, obtusis, coriaceis, extus tomentosis, margine cohærentibus, et corollam monopetalam, pentagonam mentientibus. Nectarium duplex; glandulæ quinque oblongæ, obtusæ; et squamæ totidem truncatæ pubescentes, glandulis dictis cinctæ, ad basim germinis. Stamina: filamenta quinque lineari-lanceolata, basi parum dilatata, infra medium petalorum inserta; antheræ lineares, versatiles. Pistillum: germina quinque coalita; stylus filiformis, staminibus brevior; stigmata quinque oblonga, obtusa, crassa, conniventia. Pericarpium: capsulæ quinque, coalitæ, uniloculares, monospermæ, bivalves. Semen ovatum."

The Bonplandia is a native of South America, and frequent in the woods near Carouy, and Alta Gracia. It grows to the height of from sixty to eighty feet, of an elegant and majestic form. Its trunk is straight and cylindrical. The bark is only one or two lines in thickness, and is sometimes cracked externally. The wood is of a clear yellow colour, dense, and susceptible of a polish like boxwood. The branches are alternate, the lower horizontal, the upper more upright. The bark of the younger branches is of a fine green colour, dotted with greyish tubercles. The leaves are evergreen, alternate, composed of three leafits, one or two feet in length, the middle one being one-sixth longer than the lateral ones, supported on a common foot-stalk ten or eleven inches long. The leaves, when fresh, exhale an extremely agreeable aromatic odour. The corymbus is terminal, about fourteen or eighteen inches long, having a foot-stalk of nearly the same length with that of the leaves, and composed of alternate twigs, bearing each from three to six flowers.

In its botanical character, the Bonplandia approaches most nearly to quassia, but is sufficiently distinguished by the insertion of its stamina into the petals, and by the petals cohering at their basis, resembling a monopetalous corolla.

The name Angustura bark, is derived from the Spanish denomination *cascarilla* or *corteza del Angostura.* From the very considerable contraction of the Orinoco near Guayana, the town of St Thomas is vulgarly called *La Angostura*, the straits, and therefore it is not correct to write *Cortex Augusturæ* or *Augustæ*, as has been done, under the false supposition that the bark came from the town of St Augustin in Florida.

The Bonplandia trifoliata, which has the form of the cacao tree, seems to belong, like the Myristica otoba, Bertholetia and Ceroxylon, to those groups of valuable plants which Nature has confined within a very small extent of country. It is chiefly found to the south of the lower Orinoco, in the missions of Carouy, inhabited by the Caribbs, 28 leagues east from Angostura. It is frequent in the fine forests around *Villa de Upatu*, *Alta Gracia*, and *Copapui*, between the rivers Carouy and Upatu, but five or six leagues distant from the right bank of the Carouy. The bark is an article of commerce at Saint Thomas, Carouy, and Trinidad. Bonpland also found it among the plants of the gulph of Santa Fé, between Cumana and New Barcelona.

The Catalonian capuchins who possess the missions of Carouy, prepare with great care an extract of angostura bark, which they distribute to the convents of Catalonia.

The Bonplandia is unfortunately indicated on the *tableau* belonging to Humboldt's geography of plants, under the title of *Cusparia Febrifuga*, which has led the London college into a false nomenclature. It must not be confounded with the Cuspa or false Cinchona of Cumana, which has alternate leaves.

PART II.

CRITICAL ANALYSIS.

I.

A Treatise on the Principal Diseases of Dublin. By MARTIN TUOMY, M.D. T.C.D. and Fellow of the King and Queen's College of Physicians in Ireland. 8vo. pp. 399. Dublin, 1810.

SOME of the most important contributions to the knowledge of the naturalist, the antiquary, and the historian, are to be found in those local histories of towns and districts, compiled upon the spot by a resident inquirer, to whom all the traditions and records connected with it, as well as the physical circumstances of the place, had become familiar from long and repeated observation. In like manner, the endemic histories of the human constitution, if we may so speak, the local varieties of health and disease, are extremely interesting to the pathologist; inasmuch as they tend to elucidate in particular the causes of diseases, to show the influence of various physical and moral agents on the living body, and to enable us, therefore, to adopt a system of preventive measures, which may often supersede the pains and dangers of disease, and the more uncertain expedients employed for the purpose of cure. This, however, implies a concomitant account of what has been called the medical topography of the place referred to, as well as a history of the seasons during which the diseases occurred.

On perusing the title-page of this book, the reader will probably expect that he is about to meet with such a history. But, like ourselves, he will be doomed to suffer the disappointment of finding only a general systematic treatise on some of the most common disorders of the human frame, in every quarter of the globe, without any reference to the local circumstances under which they appear: so that it might equally serve for a treatise on the principal diseases of Moscow, Geneva, or Amsterdam, as on those of the metropolis of Ireland. He will observe this exception, however, to its application to the places just mentioned, that several of the ordinary maladies of those places are not to be found in this treatise: the small-pox, for example, the croup, hydrocephalus, epilepsy, diabetes, the diseases of the kidneys, bladder and heart, colic, diarrhœa, gout, erysipelas, hysteria, piles, hydrophobia, scrofula, insanity, &c. &c. are not described among the principal diseases of Dublin. The gout, indeed, is casually alluded to, once or twice, in its irregular forms; and erysipelas is used as the appellation of a disease, which differs not less from erysipelas in its appearance and progress, than from small-pox; viz. the *zona*, or shingles: but of the other diseases just specified, we find no notice whatever.

If it be difficult to discover any reason for the omission of these ordinary, but important maladies from the catalogue; it is not more easy to account for the arrangement of those which are selected for description. It would almost seem that they have been put together by the printer, as the separate essays happened to lie in the author's port-folio, rather than from any principle of connexion. Dr Tuomy begins, indeed, by telling us, that he has adopted a new classification, by arranging under the head of *bilious diseases* a number of disorders which "are far differently arranged in systematic works;" namely, bilious fever, inflammation of the liver, jaundice, cholera, dyspepsia, and dysentery. But the work proceeds, without any intimation, where the bilious class is concluded, and a new class begun. Having discussed the diseases just enumerated, the author proceeds to intermittent and typhoid fevers: but between the two, he places dropsy in its three ordinary forms. After typhus, he treats of worms, and then of catarrh, influenza, pneumonia, and inflammatory sore-throat. Next follow rheumatism, acute and chronic, inflammation of the stomach and of the bowels, measles, and scarlet-fever. After scarlet-fever, the gripes, diarrhœa, and convulsions of infancy are introduced, and followed by apoplexy, palsy, asthma, and chincough, leucorrhœa, menorrhagia, and St Vitus's dance. To conclude the motley assemblage, a small collection of chronic cutaneous diseases brings up the rear, and completes the list of "the principal diseases of Dublin."

Our readers will not expect that we shall enter into a systematic detail of the symptoms, causes, and treatment of these ordinary complaints; which are here described in the ordinary terms of other systematic treatises. We shall call their attention to those subjects only, which possess some degree of importance or of novelty.

One leading feature of the work, is the reference of a considerable number of disorders, both acute and chronic, to a morbid condition of the secretions poured into the alimentary canal; a source of disease from which the views of practitioners had been for a long time diverted, by the doctrines of the *vital* or *nervous* pathologists, and especially by the plausible dreams of Brown, but to which a general sense of the value of observation and induction, aided by the important publications of Dr Hamilton, Mr Abernethy, &c. has of late recalled the attention of professional men. Fifteen or twenty years ago, when spasm, and sthenia, and asthenia, were the leading articles of our faith, an intelligent German traveller* expressed his surprise, that the *gastric* system was almost entirely unnoticed by the English physicians: And had the work of Dr Hamilton been then published, it would probably have been scouted by the *illuminati* in the schools of excitability and sensorial power, as a tissue of empirical absurdity, or condemned, by them, to the same oblivion with the observations of the practical German. What our author has said upon this subject, seems to be partly the result of personal experience; but, as he scarcely ever condescends to name or refer to any other writer, and never quotes the page, chapter, or even title of any work, it is not easy to collect how much is borrowed. We think, however, that he is far from being discriminative in his generalizations, or very accurate in his diagnostics.

He commences with an enumeration of the following symptoms, as common to all "the bilious and hepatic diseases of Dublin:" namely, pain and fulness, with some soreness on pressure, in the abdomen, especially in the epigastrium and hypochondria; flatulence; bitterness of the mouth; loaded tongue, of all shades from a light yellow to a dark brown or black; nausea; sallow or yellowish tinge of the complexion and eyes; want of appetite; irregularity of bowels, which are most commonly costive, but sometimes there is a scanty purging, with tenesmus; sighing, which, he affirms, is commonly the precursor of a *critical eruption* on the skin, especially of a miliary kind; and vertigo, which often *amounts* to violent headach.

His description of the symptoms of bilious fever is neither full nor very discriminative: but some of his remarks on the method of cure, and especially on the operation of purgative medicines, accord so accurately with what we have often witnessed, that we cannot doubt that they are the result of actual investigation. After premising that the principal object of medicine consists in removing the acrid contents of the bowels, and correcting the morbid secretions; in relieving topical distress; and in supplying the patient with light nourishment, diluting drink, and pure air, and maintaining cleanliness; he says,

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* Mr Fiſcher. See Annals of Medicine, vol. I. p. 67.

"The purgatives must be steadily persevered in throughout the complaint; for it is upon them we must principally rely for success: and as the accumulation of foul matter in the alimentary canal is constantly and copiously produced; so there is no disease in which the free and regular use of purgatives causes less distress, or gives more uniform relief. It frequently happens, that from the operation of a purgative, a large quantity of foul excrements comes away; and yet in ten or twelve hours after, there is another large evacuation, so as often to cause great surprise how so much could be generated in so short a time; and these copious and foul evacuations continue for several successive days without inducing proportionable weakness; but on the contrary they procure great mitigation of the symptoms: even delicate and young females are relieved, without being exhausted, by these evacuations."

These copious discharges of muddy, or pitchy, and offensive stools, indeed, are often such as to excite the astonishment of the patient himself, and his attendants; who express their "wonder, whence all the matter can come:" for it very far exceeds the quantity of the ingesta, both liquid and solid. And so far from producing weakness, we have often observed with pleasure the renewal of strength which these evacuations occasion, when a languor and depression of the animal powers, even to fainting, had previously existed. But we have likewise remarked, that as soon as the alvine excretions have assumed a natural appearance, a much smaller evacuation has actually produced a considerable reduction of the strength. The author has, perhaps, not sufficienly pressed upon the attention of his readers the necessity of carefully inspecting the alvine discharges; which affords the best, or indeed the principal index, as to the regulation of the purgative medicine. He judiciously observes, however, that "it is remarkable that we are disappointed of any substantial improvement in the state of our patient, whilst the dark fæces remain behind, notwithstanding the quantity of the evacuations procured." p. 9.

"In the exhibition of medicine to produce those desirable changes," he states, "it is proper to observe, that some purgatives will pass through the bowels with the effect of causing repeated and liquid stools; but will leave the greatest part of the sordes behind them, (of this I have seen several instances); so that an appropriate cathartic exhibited immediately after this liquid purging, shall bring away copious stools of fetid, dark, and solid excrements. The advantage of selecting the effectual purgatives, and of avoiding that injudicious use of any medicine, because it has the name of a purge, I conceive it necessary to enforce; because I believe the practice of resorting to purgatives indiscriminately has often converted into a lingering disease, that which might have been cured in three or four days; and has not unfrequently been the means of sapping away a large portion of valuable health." p. 7.

With these observations, practitioners in general will conicide, as well as in the preference given to calomel, combined with rhubarb or jalap, as the purgative most to be depended upon, in the first instance, and also in recommending the junction of an opiate with the mercurial, in the case of irritability or tenesmus in the bowels. The various expedients directed to be employed for the removal of urgent symptoms, are, on the whole, judicious. But, "in the phrenitic or violent delirium," (which, by the way, is not very common in a mere bilious fever in this country), we are satisfied that the section of the temporal artery is infinitely more efficacious, and less equivocal in its benefits, than bleeding from the arm, as our author advises. It affords us a much more effectual control over the morbid circulation in the head; and, therefore, at once subdues the phrenitic state; and, by superseding the necessity of repeating the detraction of blood, is ultimately a saving of the strength of the patient. Of this we have seen some examples in this country; and the testimony of the late ingenious Dr Irvine, in regard to the success of the practice in the fevers of Sicily, tends strongly to establish the fact. †

In the observations under the head of hepatitis, we find a considerable degree of confusion. For not only are the symptoms of acute and chronic hepatitis intermixed; but the enlargement, scirrhosity, and tuberculated state of the liver, are included under the same head. From this confusion, perhaps, originated some of the following observations.

"Hepatitis most commonly attacks *old persons*, those of irritable and relaxed constitutions, those who are much addicted to the use of spirituous and fermented liquors, persons of indolent and sedentary habits, and who indulge freely in the use of *tea and coffee:* Hence *women* frequently suffer from liver diseases, in consequence of their sedentary habits, and of their excessive indulgence in the use of these slow poisons, tea and coffee," &c. p. 30.

But the observations on erysipelas (which is casually mentioned under the head of hepatitis) betray an extraordinary want of accuracy or of inattention. We are told, that "in hepatitis, erysipelas will seize upon different parts of the surface: sometimes it fixes upon the leg or arm; sometimes it imperfectly encircles the trunk below the hypochondria, in the form called *zona ignea*, and it is then of the *papulary* kind," &c. (p. 40.) Now, it is indisputable, that the *zona* is *never* papular, but *always vesi-*

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† See Edin. Med. and Surg. Journal, Vol. vii. p. 338.

cular; that it is never "dangerous," or accompanied with "severe inflammatory symptoms," or "a hard pulse," or requires either "free bleeding, or brisk purging;" and that, to consider it as the result of hepatic disease, is *bilious* hypothesis at its climax. The author, indeed, only affirms that he had seen it *twice* accompanied with disease of the liver; whereas, we have seen it in numerous instances, where no one symptom of such disease was present.

The same *bilious* and *mercurial* prejudices (for they usually go together) lead our author to consider the external use of mercury, by friction, as the remedy "chiefly to be relied on in jaundice;" a piece of hypothesis, which is neither plausible in itself, nor supported by experience. This is his logic. Biliary calculi are only formed, when the secretion of the bile is unhealthy; but biliary calculi are the most common causes of jaundice: *ergo* we should endeavour to restore the healthy action of the liver in order to remove jaundice. Admitting the first member of the proposition, however, the only legitimate inference to which it leads, is, that restoring the healthy secretion of the bile would *prevent* the farther formation of calculi: But it is obvious, that the first step towards the *cure* of jaundice consists in removing from the common duct the calculi already formed, and obstructing its passage. But when we consider the lesson of experience, that jaundice is frequently cured, *citò, tutò, et jucundè*, by a purge or two, the recommendation of trifling with external friction, or impregnating the system with mercury as a solvent of gallstones, as the sheet anchor in the cure of jaundice, surely merits our animadversion. The recommendation of mercury, carried to the extent of causing a salivation, in cases of *old dysentery*, where the lining membrane of the intestines is already organically diseased (p. 69.), is another spice of the same delectable hypothesis, of the same general devotion to this new god of physic, before which modern empiricism bows down and worships with a blind adoration. But our author does not stop here: for under the head of *indigestion*, we find that calomel is the grand object of his eulogium. "I have tried a large catalogue of absorbents," he tells us—"bitters; aromatics; and chalybeates, generally ordered in cases of this sort; and I am inclined to believe, that a steady adherence to this method will cure more cases of dyspepsia, than all those medicines together, without mercury." (p. 79.)

The tendency of such sweeping recommendations of an active medicine is, to encourage a dangerous empiricism: to teach men, both in and out of the profession, to resort to a supposed panacea, and to dispense with the trouble of investigating symptoms, when discrimination is necessary for safety; and to impress them with a notion, that when the *name* of a disease is learnt, the remedy is obvious. And this is the more to be apprehended from a book, which, from uniting the vernacular with technical phraseology, seems intended for popular perusal.

The rest of the diseases, which are here treated of, afford no particular occasion for remark, which would justify the lengthening of this article by dwelling upon them. In general, they are discussed in a respectable, but commonplace manner, tending neither to inform the learned, nor to mislead the ignorant. On Dr T.'s account of cutaneous eruptions, however, we shall pause a while. He avows that he has described them without any attention to system; "because, as far as he has been able to ascertain, there has not been any classification of them which could tend to introduce sounder practice, though it might assist to facilitate the description of their symptoms." (Pref. vii.) But, we think, this very reason includes an inconsistency: for whatever tends to introduce discrimination into practice, and to facilitate the diagnosis of diseases, tends surely to establish the methods of cure upon more clear and certain grounds; and it appears to us, that this deficiency of discrimination has itself been the principal cause of the imperfect condition of this department of the healing art. At the same time, the descriptions, given by Dr Tuomy, are themselves happily illustrative of the uselessness of such histories, where all system is discarded. For either the diseases, which he delineates, are peculiar to Dublin; or they are so imperfectly depicted, that we do not recognize our old acquaintances. He speaks of "distinct scabby sores of adults," affecting the thighs, buttocks, and lower extremities, and occurring in respectable ranks of life, which are not the itch, but, like it, are propagated by contagion; and also of "pustular eruptions of children," otherwise healthy, and among the better class of people, which spread over the whole body, leaving, in many instances, no part of the surface, not even the scalp or the soles of the feet, free. In the latter, when the cuticle is abraded, crusts are formed, by the matter oozing from the pustules, which spread thick over the surface of the body, on the face, behind the ears, and at length over the hairy scalp, &c.; on many parts forming running ulcers. With a *contagious* eruption in adults, like the former of these, we are altogether unacquainted: and we suspect that the latter, in children, is an eruption of the pustules, called *favi* by the older writers, and which on the scalp produces one or two of the varieties of porrigo, or scald-head. Dr Tuomy recommends nearly the same treatment for these pustules on the head, as for the dry encrusted tinea; viz. frequent shaving, a spirituous lotion, and an ointment of black pepper: in which, we think, there is an obvious deficiency of practical, as well as of systematic discrimination. For surely a discharging and irritable surface will not require, or even bear, the same stimulant treatment, which a dry and inirritable part demands.

The last disease which our author describes, is a dangerous, though not a frequent affection of children, which is called "white blisters" and "burnt holes," in different parts of Ireland. Dr Tuomy acknowledges that his account is taken from a work of Dr Stokes; but he never informs us of the title of that work, or makes any specific reference to it. He considers it as allied to Pemphigus. The disease begins with the appearance of vesicles, about the size of a pea, which, in the course of two or three days, burst and discharge a thin offensive fluid. The vesicles become confluent, and spreading ulcers ensue, with a remarkable fetor, and livid edges, and a very copious discharge. The patient dies about the 10th or 12th day. Carrot poultices, in a state of fermentation; ointments made with the juice of the plant scrophularia; yeast internally, and laxatives are recommended by Dr Stokes: and our author adds, that calomel should form a part of the purgatives—the never to be forgotten calomel!—We should be disposed to anticipate benefit from cordials and improved diet; for it has appeared to us, that these *vesicular* febrile diseases are generally much connected with impaired nutrition, or unwholesome food; the effects of which will of course be aggravated by damp and uncleanly habitations, want of ventilation, personal cleanliness, and the other depressing circumstances to which the children of the poor (among whom this affection principally occurs) are exposed. We have occasionally seen instances of these vesicular diseases in children in this country, which were connected with bad habit and imperfect feeding, and yielded to chalybeates and other tonics, with generous diet.

Dr Tuomy has thrown a variety of *formulæ* into an appendix, to the number of 107, to which he refers in the body of the work; and, for the benefit of those who do not understand Latin, he has annexed an English translation in an opposite column. Neither his Latin, however, nor his English are characterized by elegance, and not always by correctness. In directing "two tea-spoonfuls to be taken for a dose, and repeated every ten minutes, until the desired effect be produced," he writes, "sumat cochlearia duo parva et *repetat decem quibusque minutis ad effectum.*" (No. 107.)—The *ad effectum* is a very favourite phrase. He talks of cochleare *medium*, meaning *modicum;* and has invented a new ablative case for *pondus*, namely *pondo.* (No. 30.)

Among several incorrect English phrases, we may mention the following—" It had therefore *better to be* premised. " (p. 167.) A bed-room, " with a fire occasionally *light* in it. " (209.)—Speaking of fever, he says, " in pregnancy, *when seldom it occurs*, it is extremely dangerous, " (137.); and tells us, that patients should not be violently restrained, " in cases of great *fury to get out of bed.* " (150.)—with several other expressions, which seem to be the offspring of carelessness, or defective knowledge of the structure of the language, or of a wish to accommodate his phraseology to vulgar readers.

II.

Disquisitions in the History of Medicine; Part First, exhibiting a View of Physic, as observed to flourish during remote Periods in Europe and the East. By RICHARD MILLAR, M.D. Lecturer on Materia Medica in the University of Glasgow. 8vo. Edinburgh, 1811.

THIS work presents, in an instructive and convincing form, the facts and arguments long since scattered over the surface of medical literature, by travellers and historians of physic; and it furnishes, from foreign and unfrequented sources of intelligence, as well as from the author's own reflections, some new views of the subject. Dr Millar undertakes to commemorate the details of the system of physic, which he thinks was established by the Brahmans, at a very remote era, in the East, and to show that a remarkable coincidence is to be discerned between its precepts, and those promulgated of old by the respective hierarchies of Iran (the old Assyrian empire of the Greeks), and Egypt. In this first part, he investigates the state of physic in Greece, during the first, or traditional ages, and in Egypt; and in a subsequent volume he proposes to continue the same path of research into the condition of the healing art, such as it may be found to have flourished in the other two Oriental monarchies, Hindustan and Iran. A treatise on the physic of the Jews will be subjoined as an Appendix, if the author meet with sufficient encouragement to complete his plan, which we hope he will, for the sake of the learning and perseverance which he has displayed. One of the fourteen *Retna's*, or precious things, we are told, which among the ancient Indians their gods are believed to have produced by churning the ocean with the mountain Mandara, was a learned physician; and it would show a degenerate taste, if medical learning was not in the present age highly prized.

The obscurity which enveloped the infancy of the medical art, is the same as that which belongs to the origin of all the branches of human knowledge. Dr Millar conjectures that the materia medica has just claims to the supreme honours of antiquity, because a knowledge of the salutary or noxious qualities of plants destined for food, must have necessarily exercised the experience and sagacity of the ancestors of our race. But it is nowhere proved, that such a variety of plants existed in the early ages of the world; and to reason from the general course of nature, it seems probable, that few vegetables only were produced at first, and those destined to form a part of the daily food, or remedies for the diseases of mankind.

The practice of killing the inferior animals for food gave rise, Dr Millar thinks, to the knowledge of anatomy; the custom also of sacrificing human victims, so universally prevalent over the ancient world, and the art of embalming, is supposed to have led to the acquirement of anatomical and surgical skill. But it is easy to perceive, that this must have been very limited, if we consider the manner in which these operations were performed: And we are disposed to consider the acquisitions of those nations that precede the rise of philosophy and letters in Greece, as overrated by Dr Millar in regard to their skill in dietetics, and the practice of physic and surgery. The uncivilized communities of Polynesia, America, and the interior of Africa, present to us, at the present day, the picture of mankind in their original state. Among those tribes of savages, the juggler and the physician are usually the same person; diseases are imputed to the immediate action of supernatural power; consequently exorcism is the remedy, and this is employed by the priests. The inhabitants of the South-sea islands are unacquainted with any means of curing, or even alleviating the diseases which are common amongst them. They are cruel to their sick; the sight of suffering is at all times painful; and when barbarians have no hope of relieving it, they oftentimes abandon the sufferer, or more mercifully put him to death. The missionaries soon perceived how much to their advantage it would have been, if they had all been medical practitioners. Dr Millar concludes his introduction with a long and learned note on cannibalism, wherein he proves, from indisputable authorities, that this savage custom has prevailed, not only in Africa, Asia, and America, but among the Gothic and Celtic races of the British Isles; and he quotes the celebrated passage from Jerome which describes a tribe of men-eaters in the neighbourhood of Glasgow. We shall quote the passage, and subjoin Gibbon's paraphrase or translation, which is not a little curious, because it contains a mistake, which is no trifle for so eminent a scholar to make.

> "Cùm ipse adolescentulus in Galliâ viderem Attacottos, gentem Britannicam, humanis vesci carnibus; et cum per sylvas porcorum greges et armentorum pecudumque reperiant, *pastorum nates et feminarum papillas* solere abscindere; et has solas ciborum delicias arbitrari."—Jerom. T. II. p. 75.

> "A valiant tribe of Caledonia, the Attacotte, the enemies and afterwards the ſoldiers of Valentinian, are accuſed by an eyewitneſs of delighting in the taſte of human fleſh. When they hunted the woods for prey, it is ſaid, that they attacked the ſhepherd rather than his flock; and that they curiouſly ſelected the moſt delicate and brawny parts both of males and females, which they prepared for their horrid repaſts."—Gibbon, Decline and Fall of the R. Empire, Vol. ii. page 531. 4th edition.

It is amusing enough to observe the hind quarters of fattened hogs and the dugs of sows, converted into the buttocks of shepherds, and breasts of shepherdesses.

After speculating on the history of medicine in ancient times, Dr Millar enters upon a disquisition on the *primeval Chersonese*, or primitive nations of the world. He contends for the early civilization of Asia, and Africa; and considers the Hindus, Iranians, Egyptians, and Ethiopians, as so many separate branches of one and the same individual race.

His arguments are founded on the four following sources; 1st, Traditional and historical record; 2d, Identity of language and written character; 3d, Conformity of religious and philosophical opinion; 4th, Similitude of corporeal structure.

As a specimen of the rational and specific spirit of remark, which pervades these disquisitions, the following passage may suffice.

> "It will no doubt be deemed a bold propoſition to aſſert that the firſt civilized of our race, the common inſtructors of Europe and the world, were originally a negro people; yet the affirmation once made, arguments are not wanting for its defence. That the African Troglodytes were negroes, no doubt can be entertained; and that the ſame race at a very early period gathered the fruits, and cultivated the fields of India, beſides the common opinion of antiquity with whom Ethiopic and Indian were convertible terms, may be fairly preſumed not only from monuments of ſculpture and architecture ſtill exiſting in the country, but the indubitable patronymic marks ſtill impreſſed upon the countenances of one portion of its inhabitants. The cuſtom of framing abodes by hewing caverns out of the ſides of rocks and mountains, muſt not be deemed a practice peculiar to the ſhores of Africa. The ſame faſhion appears to have prevailed, during the moſt remote era, in Hinduſtan. Theſe Troglodytic habitations ſtill remain in both countries; and little doubt can be entertained that they

all equally proceeded from the industry of the same architects. In primeval ages, the humble abodes of men, provided they be somewhat ornamented and enlarged, seem a suitable dwelling for the divinity. Caverns, accordingly, as well as among many other nations, appear evidently to have constituted the first temples among the Coptic and Hindu tribes. The negro features of the oldest idol of Egypt, the Sphinx, have been already noticed; the images which, by their colossal size and peculiar workmanship, excite so much astonishment in the caves of Salsette and Elephanta, discover unequivocal marks of the same origin. Men form representations of their gods in resemblance of themselves; and when the frizzled hair, narrow forehead, flat nose, and thick lips, together with the muscular limbs of these figures are contemplated, so different in appearance from the modern Hindu, no doubt can remain that the original types were either indigenous or foreign negroes. (Hunter in Archæologia, Vol. VII. 301.) The images dug up of late years at Gaya on the Coromandel coast, are impressed with the same features, and evince that the negro race was once diffused over the eastern no less than the western shores of the Peninsula. Upon these images, and within these excavations, have been found various inscriptions engraved in characters at first difficult to decypher. After a diligent examination, Sir William Jones discovered them to be composed of nearly an equal number of Nagari and Ethiopic letters, another proof of ancient affinity betwixt the African and Indian Troglodytes. (Works of Sir William Jones, vol. i. 27.) It may be added here from the same author, that the statues and pictures in India, representing the Varahavatar or incarnation of Vishnu in form of a boar, bear a strong resemblance to the Hermes Canis of Egypt. (ib. 30.) It was the opinion of the ancients, that the Hindus differed in no respect from the Ethiopians, except in the straightness of their hair; and that this change might readily be effected by the humid atmosphere of India. Whatever objection the modern physiologist might start against this doctrine, certain it is, that the mountaineers of Bengal and Bahar, even at the present day, present a countenance not distinguished by its contour from the natives of tropical Africa, (Works of Sir William Jones, vol. i. 31.), and like the Shangalla of the Derkin and Atabara mountains, may not unreasonably be deemed the feeble remains of the Troglodytic race, who once possessed, as an inheritance or colony, the eastern extremity of the primordial Chersonese." p. 88—92.

Volney found the features of the celebrated Sphinx, one of the oldest monuments of Egyptian sculpture, impressed with all the usual traits of the negro countenance; and there can be no doubt that the original type was the visage of the antient natives of Egypt. Though the engraving of the Sphinx's head be Ethiopian in Denon's travels, it is not so in Pococke: the former probably is the most accurate, and therefore most to be depended upon. In Pococke's plate, the nose is European, and the other parts of the head and face are negro: we are inclined to suspect, the drawing was made from an old Egyptian head in the British museum, in which the nose is evidently modern. In describing the esculent roots of the primeval Chersonese, Dr Millar has fallen into an error with regard to the Linnæan Nelumbo, which was never yet seen with *yellow petals* anywhere, but in Dr Thornton's plates. The disappearance of that plant, from modern Egypt, favours the idea that it was carried there from India; which affords an additional argument to our author's hypothesis of the derivation of the mythology and customs of these countries. We beg leave to refer him for some ingenious illustration of this curious subject, to the article *Cyamus* in Rees's Cyclopædia, vol. x.

The disquisition on the heroic and priestly medicine of Greece is very good, and the point is well supported and established; but we do not think this circumstance has been overlooked by all former historians of medicine. On referring to one of the lately published historical works, we find the same idea particularly expressed, (vid. Cabanis's Revolutions of Medical Science, p. 37. Translation.)

Chapter II. which forms the conclusion of this part of the work, treats of medicine in Egypt and the East. Some remarkable facts are selected from Clemens of Alexandria, who describes the contents of the sacred medical writings among the Egyptians; and that curious division of labour is noticed from the works of Herodotus. The art of healing was divided into as many different branches as there were diseases, or organs of the body affected. Oculists, aurists, dentists, hepatists, stomachists, lithotomists, corn-cutters, &c. &c. seem to have flourished, among this wonderful people. The real knowledge of the Egyptians in medicine, it is not easy to appreciate: we believe it was inconsiderable: the manner in which it was taught and practised in their temples, was calculated to create believers, rather than enlightened votaries of truth.

A history of the medical school of Alexandria is one of the desiderata in literature; we beg leave to suggest that subject to Dr Millar for disquisition, in another volume of his work. The union of sagacity and research of medical science and classical attainment requisite to execute it well, rarely occurs. The Serapæum of Alexandria, which we consider the important school of medical studies, was a college founded by Ptolemy Soter, son of Lagus, or Ptolemy the first. In his reign, Herophilus was professor of anatomy there. The public criminals were consigned to him for dissection, the soldiers also who died of their wounds, and others. Tertullian says of him; "Ille medicus aut lanius qui sexcentos homines exsecuit, ut naturam scrutaretur." Serapion was one of his distinguished successors, and Themison another.

III.

On the Non-existence of Sugar in the Blood of Persons labouring under Diabetes Mellitus. In a Letter to Dr Marcet, with his Reply. By W. H. WOLLASTON, M.D. Sec. R. S.

(From the Philosophical Transactions, 1811.)

DR ROLLO having asserted that the blood of diabetic patients gives no sign of putrefaction, and indicates the presence of saccharine matter diffused over the whole animal economy, chemists and physiologists have submitted this specious hypothesis to experiment; but they have not corroborated the statement so confidently made. The serum of persons affected with diabetes mellitus has been analyzed very frequently at Edinburgh; but in no instance did it afford the least indication of the existence of sugar, nor, in making comparative experiments with healthy blood, have we been able to detect the slightest difference in its chemical composition. Messrs Nicolas and Gueudeville determined, by their inquiries, that the blood of diabetic patients contains no saccharine matter; but they found the fibrin in less quantity, and the serum more abundant than in the blood of persons in good health. Dr Wollaston first began his experiments soon after the publication of Rollo's treatise (in 1798), and, by an ingenious series of synthetical investigations, he has arrived at the most satisfactory conclusion. He first ascertained how the albuminous part of healthy serum could be most completely coagulated, and by what appearances the presence of sugar that had been added to it would be most easily discerned. To six drams of serum he added half a dram of muriatic acid, previously diluted with one dram and a half of water, and immersed the phial containing them in boiling water for four minutes. In the course of a few hours, a dram or more of water exudes from the serum that has been so coagulated. If a drop of this water be evaporated, the salts which it contains are found to crystallize, so that the form of the crystals may be easily distinguished: they are principally common salt. If any portion of saccharine matter has been added to the serum, previous to coagulation, the crystallization of the salts is impeded or wholly prevented, according to the quantity of sugar present. On applying these tests to diabetic blood and serum, no traces whatever of sugar were found. In order to account for the presence of sugar in the urine, Dr Wollaston thinks some unknown channel of conveyance exists, by which substances certainly known to be in the stomach, may find their way to the bladder, without being mixed with the general mass of circulating fluids. He tried a solution of prussiat of potash, which he found might be taken without the least inconvenience: the urine soon became impregnated with this matter, but it could not be detected in any other fluids of the body. Dr Marcet relates several experiments upon this interesting point. Five grains of prussiat of potash dissolved in water were given to a young woman labouring under diabetes mellitus, and the dose was frequently repeated. After the fifth dose, her urine, by the addition of a drop or two of a solution of sulphat of iron turned blue instantly. Serous fluid collected from a blister applied to the same patient, did not suffer any change of colour when subjected to the same test; and the serum of the blood taken from a person after the exhibition of a dram of the prussiat of potash, in the course of twelve hours, gave no vestige of that substance, although the urine struck a vivid blue on adding the smallest quantity of sulphat of iron. These appearances in the urine, however, are found to vary in different individuals; and the presence of prussic acid cannot always be detected even in the urine of some persons who have taken sufficient quantities of the prussiat of potash to produce its effects in others.

The existence of substances in the urine which have never been detected in the blood or in other fluids of the body, is not so extraordinary as seems to be imagined. Uric acid and urea are examples of this fact. Nobody thinks of having recourse to the imaginary retrograde motion of the absorbents to account for these phenomena, nor to a *via incognita* which is to be discovered by experimental inquiries. The question is curious and important; and we unite with these two very excellent physiologists, in hoping that it will soon be decided by appropriate experiments.

IV.

Practical Remarks on Insanity; to which is added, a Commentary on the Dissection of the Brains of Maniacs; with some Account of Diseases incident to the Insane. By BRYAN CROWTHER, Member of the Royal College of Surgeons in London, and Surgeon to Bridewell and Bethlem Hospitals. 8vo. London, 1811.

“WHAT I know of madneſs (ſays Mr Crowther), has been attained by particular attention to the practice of the late and preſent phyſicians of Bethlem Hoſpital; and this little, this very little, which my moderate abilities have been able to glean, regards principally the management of the inſane. Indeed I diſclaim all pretenſions as a theoriſt on the ſubject of inſanity, and ſtill more any preſumption in directing others in the treatment of its unfortunate victims." p. 95.

Why then, we are tempted to ask, publish a book containing one hundred and thirty pages? why bring again, from stubble-fields so often gleaned before, a few almost empty ears? That the author observes local diseases with the prepared eye of an intelligent surgeon; that he knows how to avail himself of his experience in the application of remedies; and that his communications are consequently of great value to the healing art, will readily be granted; yet it must be regretted that he should risk his celebrity in writing upon that difficult subject *insanity*, where so many, with the same pretensions, have failed, and where he must be directly brought in competition with almost the only English book worth reading on madness. It is allowable, likewise, to regret, that Mr Crowther should not quote Mr Haslam's work with becoming attention, when we find him recurring to it for information, and for what he calls, "*bold and bare assertions;*" which he comments upon very freely. The occurrence of surgical complaints has no influence upon disorders of the mind; madness appears to be neither aggravated nor diminished by any such bodily affection: and as Mr Crowther confesses that he has not been educated in the practice of physic, we shall select those practical remarks which come within his own line, and not dwell upon the vague declarations respecting other topics, where he appears to decide without accurate examination. In the treatment of mortification of the feet, Mr Crowther directs flannel, dipped in spirits of wine, to be applied during the day, and a cataplasm of linseed and grounds of stale beer, smearing the surface with lard, to be employed warm as a night-dressing. He next proceeds to detail a practice, which has been for years very successfully employed by him for the relief of mortification of the buttocks; a calamity which happens frequently to the helpless, insane, and to bed-ridden patients. This consists in applying an embrocation of spirits of wine, lowered with water, according to the degree of sensibility of the part, which is afterwards to be covered with the following dressing.

℞ Ung. basil. nigri.
Emplastr. litharg. cum resinâ, āā ℥iv.
Bals. terebinth. ʒij. Misce.

This application should be spread thick on linen; and it will be found sufficiently adhesive to stay upon the part without the aid of bandage.

In sphacelus of the toes, as described by Pott, Mr Crowther informs his readers, that he has not experienced the good effects which have been attributed to opium in that peculiar affection. Of seven cases of this disease, attended with acute pain, he has not succeeded in a single instance, although he gave the medicine in large and gradually increased doses.

Thus much we have selected with approbation; but we find nothing but perpetual repetitions of the same things, about definition, causes, management, and medicines, which are to be met with in the multitude of volumes on madness. And, strange to relate, the name of Mr Haslam's book is not once mentioned, although Mr Crowther declares, that his principal view, in undertaking the task of writing, was to collect and concentrate the practical ideas of others, and has adopted the very order and arrangement of his contemporary. Books of table-talk have chronicled the animosity of contending beauties, the jealousy of poets, and the rancour of painters; but these are tender passions in comparison of the hatred which inflames and freezes the sons of Esculapius. We have seen more than once, as a certain wag expressed it, physic on the point of calling surgery to its aid; and now, alas! the lancet is pointedly raised against the gallipot of Bethlem Hospital.

Mr Crowther seems disposed to undervalue all his predecessors' observations; and he speaks slightingly of the appearances of the brain, and its membranes, which dissection has discovered. It was impossible to deny the existence of such appearances, because Mr Haslam has minutely described them in thirty-seven cases; and it is wholly a separate question to determine how far that alteration of structure is connected with the symptoms of madness. The disorganization of the brain, in madness, cannot be controverted by the ignorance of an anatomical teacher in pointing it out; and the instance related by Mr Crowther of the occurrence of a lucid interval, where the brain exhibited all the varieties of altered structure, is no proof of insanity being independent of those appearances. Such occurrences are frequent in pathology. A stone in the bladder, or a carious tooth, does not always give pain; nor does a diseased heart always beat irregularly. Two cases of madness succeeding injuries on the head in patients who had never been previously deranged, nor afflicted with any hereditary disposition to it, which our author allows to be cases of true mania, and cured by venesection, are in direct contradiction to the doctrine which he holds, viz. "that insanity is a disease of the mind, not of the body."—

On the effects of purgatives and vomits, as remedies for insanity, Mr Crowther's remarks are at variance with Mr Haslam's;

and he thus vaguely expresses himself: "From my own personal knowledge, I state that vomits have their use; for the *servants of Bethlem have repeatedly told me* of the quantity of phlegm, with other offensive matters, which have been evacuated by them, in a degree that really excited their astonishment." p. 109.

Surely some more satisfactory evidence of the advantage of vomiting, ought to have been adduced than the prejudiced report of servants. In order to ascertain the utility of emetics, which Mr Haslam candidly acknowledges he cannot speak favourably of, it must be proved, that madness has been removed by them, not merely that a large quantity of phlegm has been evacuated. On the effect of cold bathing, a serious charge is brought against Mr Haslam: nothing less than a denial of the occurrence which he relates of paralysis after using the cold bath in Bethlem Hospital. We believe Mr Haslam's caution is judicious; and there is every reason to think that it is founded on experience; for nothing is more likely to happen than palsy from an imprudent use of the cold bath, and it is now rarely employed in lunatic hospitals.

We cannot close our remarks upon the contents of this volume, without reprobating the careless manner shown in many of its parts, and especially the jealous spirit of the author. It always gives us pleasure to find men labouring in the cause of medical science, whose situation affords them opportunities to ply the honourable task of adding to the common stock of knowledge; but, in this instance, we regret that the surgeon to the Bridewell and Bethlem Hospitals, has not contented himself with attending to the local diseases of the insane, and left the inquiries connected with the causes and treatment of the mental disorders, to be investigated by the qualified medical practitioners, with candour and moderation.

V.

An Account of the Ravages committed in Ceylon by Small-Pox, previously to the introduction of Vaccination, with a statement of the circumstances attending the introduction, progress, and success of Vaccine Inoculation in that island. By THOMAS CHRISTIE, M. D. Member of the Royal College of Physicians, London, &c. &c.

ALTHOUGH, as medical intelligence, we have reprinted several of the last official reports o the progress of vaccination in

Ceylon, we are glad to see them collected in their present form. We have always held, that the question of vaccination could only be fairly determined by the general result of experiments on a very great scale. The successful vaccination of a limited number is not sufficiently decisive; and individual cases of failure may be readily exaggerated, imagined, or fabricated, while, on the other hand, they may be explained away, overlooked, or denied. But its effects upon a whole population, can neither be misunderstood nor misrepresented. Of such a grand experiment, the pamphlet before us contains an authentic account; and it is the more decisive in favour of vaccination, as it proved eminently successful in a country where the ravages of small-pox were dreadful, and immediately after a powerful attempt to mitigate them, by the introduction of variolation, had completely failed. Contrast with the last report of the effects of vaccination in that island, printed in the 254th page of the seventh volume of this Journal, the following statement of the effects of small-pox inoculation.

"On reviewing the reports made to the committee of superintendance, it appears, that from the 1st of October 1800, to the 30th September 1802, the number of patients with natural small-pox, treated by the medical overseers in the different hospitals and villages in Ceylon, was 2110, of which number 473 died, being nearly one-fourth of the whole; and the number of inoculated patients amounted to 4158, of which number 108 died, being nearly 1 in 38.

"This considerable mortality occurred under the most favourable circumstances of treatment; and it is conceived, from my own observations, and those of the different persons with whom I have conversed on the subject, that the mortality from natural small-pox amongst the inhabitants of Ceylon, when left to themselves, was much greater."

VI.

Observations on the Hydrargyria, or that Vesicular Disease arising from the exhibition of Mercury. By George Alley, M.D. M.R.I.A. Fellow of the Royal College of Physicians of Edinburgh. 4to. pp. 103. London, 1810. Longman and Co.

We have to apologize to our readers, for suffering a work of so much accuracy and learning, as the essay before us, to pass so long unnoticed. Since the period of its publication, the author has been farther occupied in investigating the operation of mercury in various diseases, and has already announced the publication of a volume on the subject. We hope, therefore, to be able to make the *amende honorable*, by a more early notice of his forthcoming treatise.

The disease, to which Dr Alley has assigned the appellation of *hydrargyria*, has been for many years noticed by several faithful observers. Mr John Pearson, in London, has been in the practice of describing its symptoms from the year 1783, in his Lectures on Surgery.* It was known a considerable time ago to the physicians of the Royal Infirmary at Edinburgh, where we recollect to have seen an instance of it in the year 1798. But with the exception of a brief notice of the complaint in Mr Benjamin Bell's "Treatise on Gonorrhœa," &c. † no distinct account of it was published from the press, until Dr Alley produced a small tract, expressly upon this topic, in the year 1804, then denominating it the "*Mercurial Disease.*" This tract was soon followed by other publications upon the same subject; especially by an essay of his countryman Dr Moriarty, who called it the "*Mercurial Lepra:*" and the first paper in the first volume of this Journal, exhibited a detail of three cases of the disease, given by Dr Spens, under the title of "*Erythema Mercuriale.*" This term was adopted by Dr M'Mullin, in his inaugural dissertation, the substance of which was given in the Fourth Number of our Journal (for January 1806.) And lastly, a very accurate description of the disease was given by Mr Pearson, in the second edition of the judicious work just quoted, under the appellation of "*Eczema Mercuriale.*" Such is the literary history of this disease, which our author has pointed out in his preface.

In regard to the nomenclature of the disease, Dr Alley observes, that "to such a (vesicular and acute) complaint, the term 'erythema' or 'lepra' must be wholly inapplicable; the former being never a vesicular disease, while the latter is always a chronic affection." (Pref. xi.) This is the truth, but not the whole truth; for neither is lepra ever vesicular, but, on the contrary, consists of orbicular, dry, scaly patches from the beginning. His objections to the term "eczema," used by Mr Pearson, and to be used by Dr Willan, do not appear to us to be very strong: they are founded upon the uncertainty of the exact sense in which that word was originally employed. But upon the same grounds we might object to the adoption of the terms lepra, psora, psoriasis, lichen, and many others, which have been applied by different writers among the ancients to different forms of disease, with some want of discrimination. If, in adopting any of these, as generic terms, we approximate to the general acceptation in which they were anciently employed, and at the same time define the exact sense in which we appropriate them, no confusion can arise; but, on the contrary, the adoption of them will rather assist the comprehension of the reader, in acquiring a knowledge of the diseases intended to be designated by them. Now, although the terms *ἱδρὼα* and *ἐκζεμα*, as well as the corresponding Latin terms "*sudamina*" and "*papulæ sudoris*," have doubtless been applied to the *miliary vesicles* connected with sweating in fevers, and to other eruptions of a similar kind, originating from the irritation of the heat of the sun, acrid applications, and other causes, as well as sometimes perhaps to mere *papular* eruptions; yet it seems obvious, that an extensive efflorescence or ebullition, as it were, of inflammatory points, set thick over the body, has been generally understood by these terms, both among the ancient and modern writers in those two languages: and as, on the one hand, the word *miliaria* has been appropriated to the sudamina, arising in the sweating stage of fevers, and, on the other, the *papulous* eruptions have been designated by the term *lichen* in Dr Willan's arrangement; so, the appropriation of the term *eczema* * to the profuse eruption of minute vesicles, originating from irritants, and not the result of previous fever, according to Dr Willan's method, seems to be convenient and advantageous. It is convenient, because it expresses to the learned something of the nature of the eruption; and it is advantageous, in a systematic view, because it comprehends several varieties of the same sort of eruption, resulting from different exciting causes.

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* See Obs. on the effects of various articles of the Mat. Med. in the cure of Lues Venerea, 2d Edit. p. 167.

† Vol. II. p. 227.

Dr Alley divides the disease in question into three species, or rather varieties, according to the degree of mildness or severity of the symptoms, denominating them hydrargyria *mitis*, H. *simplex febrilis*, and H. *maligna*, respectively. The first species, he says, "has, at a first view, nothing to characterize it further than the light rose-coloured efflorescence already mentioned. An attentive observer, however, by holding the affected parts between him and the light, and keeping his eye on a level with them, may perceive the surface to be studded over with innumerable, minute, and transparent vesicles: but to the naked eye the vesicular appearance is sometimes with difficulty perceptible. As the eruption strikes out, the surface is affected with a prickling heat and itching; and in some cases, for a few hours, there is slight headach and nausea." It generally appears first about the upper and inner parts of the thighs, the scrotum, groins, and lower part of the belly: sometimes it extends no farther: but at others it spreads over the whole body, the vesicles being so close and numerous, as to present one uniform suffusion. The red colour recedes on the application of pressure, and returns when that is removed. Dr Alley observes, in a note, that "the colour of the skin has, in some cases, been so little changed, that no eruption seemed to precede desquamation. In such cases, however," he adds, "there was much itching of the skin, and the surface was rough before the cuticle had begun to exfoliate." (p. 24.) But we have little doubt that, had the cuticle been examined through a convex lens, this roughness would have been found to consist of vesicles. This species, the author states, soon degenerates into the second, and even into the third, if the use of mercury be incautiously continued after the appearance of the eruption. This, however, is not always the case, according to the observation of Mr Pearson.

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* The term is from ἐκζεω, *effervesco*. Aetius thus describes the eruption: "Fiunt in toto corpore pustulæ, dolorem cientes, citra saniei collectionem. Eas eczemata, ab ebulliente fervore, Græci vulgo appellant." Tetrab. IV. Serm. I. Cap. 135. As a specimen of the modern acceptation, we may state the following definition from Sauvages. "Exanthemata illa dorsum, pectus, brachia, crura sæpius afficiunt, numerosissime consita, rubra, pungentia, acriter dolentia." Nosol. Meth.

The second variety "is preceded by languor, restlessness, and rigors; is accompanied with much heat and itching of the skin, and is considerably more rough to the touch than the efflorescence in the former species." (p. 26.) Before the spots are crowded together, the eruption somewhat resembles the measles; but they are larger, Dr Alley says, and do not afterwards appear in the annular form pointed out by Dr Willan as one of the characteristics of rubeola. By the aid of a magnifier, we believe, the vesicular appearance may be always detected, even in the early stages. Mr Pearson justly remarks, that "the vesicles, which contain a pellucid fluid, are, at their first appearance, so small, that they cannot be easily distinguished from papulæ without the aid of a convex glass; they are then seen to be distinct, each vesicle being surrounded by a circle of redness; and, if they are not ruptured at an early period, they acquire the size of a large pin's head, at which time their contents are opaque and puriform." (loc. cit.) There are, in this second species, symptoms of fever; such as headach, nausea, whiteness of the tongue, thirst, heat of skin, and accelerated pulse, together with an oppression about the præcordia. Desquamation commonly begins about the fourth day, but sometimes later, leaving the skin underneath red, and disposed to throw off successive crops, which diminish in severity until the cuticle remains whole.

The third variety, *Hydrargyria maligna*, begins like the preceding, but its distressing termination may be anticipated from the following symptoms: "1. The sense of burning on the surface is experienced to a very painful degree. 2. The actual heat of the skin becomes intense. 3. The soreness of the throat and fauces is extreme. 4. The colour of the eruption is darker, rising sometimes even to purple; and there is considerable tumefaction of the surface. 5. Vesicles of a larger size than in the former species precede desquamation." (p. 29.) The vesicles are so numerous, that the whole of the cuticle desquamates from the surface of the body; and, where the larger ones are ruptured, they pour out a very acrimonious discharge. As the disease advances, the exudation from the surface becomes more acrid and viscid, and acquires a most offensive odour.

> "During the entire courſe of the diſeaſe, there is a very great anxiety and depreſſion of ſpirits. Sleep is almoſt wholly baniſhed; and opiates procure, at beſt, but very ſhort intervals of repoſe. The miſery of the patient, under theſe circumſtances, can ſcarcely be conceived. To his mental ſufferings, which form no inconſiderable ſhare of his agony, is ſuperadded the moſt exquiſite bodily torture: for the ſurface is either left raw and unprotected, or the cuticle, hardened by the exudation which ſerves to give it partial adheſions, aggravates his torments. The pain which motion produces was aptly expreſſed by a patient of Dr Spens: "he felt," he ſaid, "as if his fleſh was cracking in pieces." (p. 36.)

In truth, no object can be more distressing to look upon, than a patient in this condition, when, from the rawness and tenderness of the whole surface, every point of contact with the bed on which he lies irritates like the pricking of needles. The desquamation does not take place so early, in this malignant variety, as in the former, not commencing in some cases until eight or ten days after the appearance of the eruption.

Dr Alley gives the following table of the results of all the cases that he had witnessed during the last ten years.

	Hyd. mitis.	H. simplex febrilis.	H. maligna.	Total.	Cured.	Died.
Male...	6	12	10	28	22	6
Female	4	7	4	15	13	2
Total...	10	19	14	43	35	8

The exciting cause is clearly the irritation of mercury, and that, in Mr Pearson's opinion, independent of the action of cold, or of the quantity of mercury employed. A peculiar idiosyncrasy, that is to say, some unknown state of constitution of the persons thus affected, is the only explanation which is attempted to be offered for its occurrence.

Dr Alley has taken considerable pains in collecting and detailing analogies; in the effects often produced upon the skin by the influence of other irritants, besides mercury, whether externally applied, or taken into the stomach, such as almonds, mushrooms, herrings, crab-fish, muscles, and lobsters; the juice of the bitter cassada, several fruits, and vegetable substances, &c. when swallowed; and cantharides, camphor, the Indian varnish, the oil of the cashew nut, &c. from contact with the skin. Few of these, however, are probably vesicular. We have seen the distinct wheals of urticaria following the use of muscles; and erythematous or papulated eruptions occasioned by other irritants to the stomach.

In the treatment of H. mitis, the author states, that " little more is requisite than to discontinue the use of all mercurial preparations, to remove the patient from the apartment in which they have been exhibited, and to advise tepid ablution of the body, and some gentle purgative medicine. " (p. 58.) In the simple febrile, and malignant species, the same plan of treatment is, during the eruptive stage, always applicable. Dr Alley agrees with Mr Pearson in his observation, when he says, " although the troublesome symptoms which arise, may be relieved by their proper remedies, I am doubtful whether any plan of treatment has the power of interrupting its regular course, or abridging its duration." (Loc. cit. p. 177.) Dr Alley strongly suggests the probable utility of the cold affusion, during the primary or eruptive fever, in order to reduce the excessive morbid heat; which, though itself a consequence of the fever, becomes in its turn a cause of much irritation, the source of fresh excitement and of new disease; leading to debility, gangrene, and putrid re-absorption, which are followed by diarrhœa, defection of the mental faculties, and death. Yet it is singular, that he is either a sceptic in regard to the truth of his own suggestions, or, that they only occurred to him while writing his book; for he leaves the remedy to be *tried* by other practitioners, not having suffered one of his forty-three patients to have the benefit of it. Of *tepid bathing*, however, he has made some trial, and found it beneficial in the eruptive stage. *Purgatives* are deemed by Dr Alley the most effectual remedies, in conjunction with immersion, for abating the excessive heat, which is the sure precursor of an aggravated disorder. The *acids*, he observes, however serviceable as antiseptics, and in relieving thirst, are seldom admissible in the secondary fever, unless combined with opium, as diarrhœa is commonly present. In the desquamatory stage, opium is necessary to relieve the incessant irritation, but of course it is to be sparingly, or not at all employed in the eruptive fever. The bark of cinchona aggravates the pectoral symptoms, Dr Alley states; and therefore we are deterred from its exhibition, although it might be deemed appropriate during the purulent desquamation; and he considers *wine* not only as an excellent substitute, but as constituting, together with a constant supply of light nourishing diet, our chief dependence.

> "As to the moſt proper external applications in the deſquamatory ſtage, practitioners have varied in their opinions. Cleanlineſs is with ſome the only object; but others have, with much juſtice, extended their views to the prevention of reabſorption from the ſurface, and to the generation of a new cuticle. In addition to freqent warm bathing or gentle tepid ablution, the application of abſorbent powders will be found uſeful; and finely levigated carbon, zinc, imp. pp. and meal, ſeparate or in a combined form, may be employed with good effect for this purpoſe." p. 70.

The author deprecates the use of saturnine applications to so large an exposed surface.

We have thus given a meagre sketch of the contents of this monograph. Dr Alley has detailed, with minuteness, every thing that can be said on the subject, and evinced a considerable share of reading upon collateral topics. But on the whole, this dilatation has the effect of weakening the impression of the picture, and of rendering it less clear, than the terse and comprehensive view given by Mr Pearson. Dr Alley has added three plates, illustrative of the three forms of the complaint; and he considers them as good representations of the appearances. They may, perhaps, serve to recal the recollections of those who have already seen the eruption; but we are sure that they are very far from affording a correct notion of it. Nothing like vesicle, even in the most imperfect degree, is represented, nor perhaps could be depicted on so small a scale. The eruption seems to consist of mere brown *maculæ*, not unlike pityriasis or some of the varieties of roseola.

We cannot terminate this article without expressing our regret that Dr Alley is no more, and that our hope of having him soon again before our tribunal is at an end. He died of typhus fever at Fermoy.

VII.

Practical Observations in Surgery, illustrated by Cases: second edition, corrected and enlarged: with additional plates. By William Hey, F. R. S. &c. &c. Cadell and Davies, 1810.

There are few modern surgeons whose writings have met with more general consideration from their contemporaries, than those of Mr Hey; and we are glad that the publication of a new edition of his work allows us to point out what we conceive to be the chief merits and defects of his writings.

The first edition of the volume before us contained twenty-one chapters.—1. On fractures of the skull.—2. On the cataract.—3. Of the strangulated hernia.—4. Of the fungus hæmatodes.—5. Of dislocations.—6. On internal derangement of the knee-joint.—7. Of loose cartilaginous substances in the joints.—8. On wounds of the joints.—9. Compound luxation of the ankle-joint.—10. On retention of urine.—11. On the cure of the procedentia ani in adults.—12. Of the cancer of the penis.—13. Convulsions after strangulation.—14. Of a tumour of the neck.—15. Of the empyema.—16. Of an enlargement of the mammæ.—17. Of collections of pus in the vagina.—18. Of alvine concretions.—19. On the atheroma.—20. Of deep-seated abscesses in the mammæ.—21. On amputation. In the present edition are added five chapters; on caries of the tibia; on a wound of the posterior tibial artery; on the hydrocele of the spermatic cord; on a case of lithotomy in the female; and on a case of tumour on the nose. We shall consider each of these chapters separately.

In the first chapter, which treats of fractures of the skull, Mr Hey enters into a long argument, to dissuade surgeons from following the advice of Mr Pott, who recommended an excision of a circular portion of the scalp, in all cases where the application of the trephine became necessary. Such a practice, we have reason to believe, is now seldom, if ever, followed; and it requires little argument to convince the surgeons of the present day, that, in all cases, every portion of torn scalp should be replaced and scrupulously preserved. It is of equal, or of even more importance to save bone; and Mr Hey makes some very judicious remarks on this subject.

"When I am called to a patient labouring under the ſymptoms of a fractured ſkull, if I find no wound in the ſcalp, upon examining the head when ſhaved, I make an inciſion through the ſcalp, in a part where a fracture is moſt to be expected. If no fracture appears, I take ſo much blood from the divided arteries, as the ſtate of the patient ſeems to require, and then reunite the lips of the wound. If the bone is fractured, I enlarge the wound, by a ſimple inciſion along the courſe of the fracture, tracing the fiſſure or fiſſures through their whole extent, unleſs they are continued to the basis of the ſkull, or where their limits cannot be explored. I do this either by cutting carefully upon the fiſſure if it is ſmall; or if it is wide, and the pericranium much ſeparated, by placing the back of my knife upon the fiſſure, and ſlitting open the integuments as the courſe of the fracture directs. Having thus expoſed the whole extent of the fracture, avoiding all unnecessary detaching of the pericranium; and having obſerved what is neceſſary to be done for removing broken fragments, raiſing depreſſed bones, or giving iſſue to confined matter, I ſaw off ſuch pieces of the cranium as require to be removed, while the integuments are held back by an aſſiſtant." p. 10.

Mr Hey particularly takes notice of the propriety of removing any loose pieces of bone, or any depressed portions, with destroying as little of the adjacent sound bone as possible; and he accomplishes this by using the trephine seldom, and employing in its stead a straight-edged or circular-edged, small saw, which is well calculated to remove any overlapping edge, or any small portion of bone, so as to allow the point of the levator to be introduced into the fracture, and raise the depressed portion. This saw, which, by the by, is a very old instrument, has been brought into general use since the publication of Mr Hey's work, where it is mentioned as one of the new inventions of the present day. Five cases are added to this chapter, which illustrate the peculiarities of Mr Hey's practice in fractures of the skull. He mentions also the advantage to be derived, by dressing the wound in such a manner as to produce a speedy adhesion between the scalp and dura mater, a practice recommended by Mr Mynors of Birmingham.

2. *On Caries of the Tibia.*—In this chapter Mr Hey gives three cases of caries of the tibia, in which he seems to think that he saved the limbs of the patient by removing the diseased portions of bone. It is questionable with us, how far, in the cases given, such an operation was necessary; and whether, had no such operation been performed, exfoliation of the diseased portion of the bone would not have taken place by a more simple, though no doubt tedious, natural process. The cases given by Mr Hey, from the age of the patients, and history of the diseases, had probably that affection of bone which is usually called scrofulous. In those scrofulous cases where the diseased portion of the bone is not connected with any joint, an exfoliation generally takes place, and the sore heals, after the lapse of a long time; and even in one of the cases given by Mr Hey, this process had been completed

at one period of the disease. In no case would a surgeon ever think of amputating, until the disease had become so extensive, and the accompanying symptoms so severe, as to render the patient's recovery by an exfoliation of the diseased bone impossible. As long, therefore, as there was any hope of an exfoliation, and no risk of the patient's immediately losing his limb, we should conceive the operation of removing the diseased portion of bones by saws or chisels to be extremely severe and unnecessary; and that such an operation should only be had recourse to in those cases where the natural process of exfoliation is remarkably slow, and accompanied with those constitutional symptoms of fever and irritation, which would exhaust the patient, were not some means employed to hasten the process. By removing the diseased bone, in such cases, we have no doubt but in many instances amputation might be avoided.

The third chapter contains one case where the posterior tibial artery was wounded, and the artery was tied by first removing two inches of the fibula, which allows the mouth of the vessel to be secured readily.

4. *Of the Cataract.*—Modern surgeons have reaped the benefit of the violent disputes which, for a long time, took place regarding the comparative merits of the two operations of couching and extraction. The perfection to which both of them have been brought, by the zealous advocates of each, enables us to make choice of either, according to peculiarities in individual cases, and in some cases to combine with advantage both modes of operating. That both these operations have been performed successfully by many, cannot be denied; but in cases of pure cataract, and in patients otherwise healthy, we can have no hesitation, in giving a decided preference to the operation of extraction; and this opinion we have formed, not only from a comparative view of the principles of the operation, but from the result of a number of cases, where both operations had been performed by many different surgeons.

In this, as in most other departments in medicine, it is much to be regretted, that it is only the successful cases which are recorded; so that, were we to judge of what has been written on the subject of cataract, it would be impossible to form any just opinion of the best operation for its cure; and, what is still more harassing, it is impossible, when we have become acquainted with all that has been written on the subject, to form any adequate notion of the difficulties of either operation, and of the many accidents and casualties which happen daily in the hands of the most dexterous and experienced.

But to proceed to Mr Hey's observations. They have two leading objects; the one to recommend couching in preference to extraction; the other to the use of a needle different from that which has been generally employed. There are many very judicious remarks on the leading circumstances to be attended to in couching; and Mr Hey, in recommending that operation, confesses that he cannot appreciate the comparative merits of extraction and couching from his own experience. The description of the *new invented* needle is tediously minute; and when he compares it with the common instrument, he surely could not have looked at needles in the possession of those who are in the habit of using such instruments, but such as are made by the dozen at Mr Savigny's warehouse. We shall always attend with much pleasure to any attempt to improve the principles of an operation; but we will hearken to new inventions in instruments, with the same scrupulous jealousy as an old mechanic would do to his apprentice who shows a new invented tool to execute any particular piece of work. Mr Hey's *needle*, and mode of operating, compared with Scarpa's, we cannot help thinking very defective.

5. *Of the Strangulated Hernia.*—The anatomical description of the parts concerned in femoral hernia by Gimbernat, has given more food for the English surgeons than any discovery of late years. It has even been alleged, that a secret compact had been entered into by a *club* of them, that each should have a slice of the new dish, at the expense of the unfortunate Spaniard! To Mr Hey was allotted a *femoral ligament*, to Mr Burns a *falsiform process*, and to Mr Astley Cooper a *fascia propria!* Thus, whilst the French cooks have long had the credit of being able to make a greater variety of good dishes from one small bit of beef than those of any other nation, it must be allowed, that the anatomists of this island have equal merit in dissecting any part of the human body into a vast number of different shreds. The investigations which have been of late years made in the anatomy of femoral hernia, whilst they have certainly added to our minute knowledge on the subject, have been equally fruitful in magnifying the importance of some points; and by complex description, and an aim at too great minuteness, have involved in a maze of obscurity, a piece of anatomy which is in itself simple. It is not therefore, to be wondered at, when we hear Mr Hey exclaiming on the difficulty of understanding these parts! In the former edition of his work, the anatomical description which he gave was generally allowed to be unintelligible, and it has since appeared to have puzzled even himself. In order, however, to allow a ray of light to enter into this almost impenetrable gloom, we are told, that Mr Hey, with a zeal truly professional and highly to be commended, renewed his anatomical

studies, went to the metropolis, and did every thing in his power to acquire a distinct knowledge, and give an intelligible description of femoral hernia. From the extracts and comments which we have already made on this subject, in our review of Mr Cooper's work (vide Vol. II.), we think it unnecessary again to resume it; Mr Hey, in our opinion, having done no more than go over ground which had been previously trod upon, and correct the anatomical blunders he had formerly committed.

6. *Of the Fungus Hæmatodes.*—This chapter has received no alterations or additions. In the preface of the former edition, Mr Hey, however, mentioned, that when his observations were made on fungus hæmatodes, he had not been aware of the description which Mr Burns of Glasgow had given of the disease. This acknowledgment, for what reason we know not, is omitted in the present edition, and no mention is made of Mr Burns's name. But the description which is given of fungus hæmatodes by Mr Burns, is much more clear and comprehensive than that of Mr Hey, though Mr Burns does not seem to have been aware of the frequency of the disease in several other organs besides the extremities, where alone he describes it. The subject, however, did not create much interest, until Mr Hey's observations were published; and now, all large and bloody tumours, of whatever kind, are by many called fungus hæmatodes; so that this term, instead of being used to signify a distinct disease, is employed very indiscriminately, and without having affixed any precise import. We cannot indeed pardon Mr Hey for this great want of candour towards Mr Burns; and we think it would not have injured his reputation to have noticed the still more recent publication of Mr James Wardop, which has contributed so much to extend our knowledge of this fatal disease.

7. *On Dislocation.*—The remarks in this chapter are extremely valuable, as they prove what is consistent with theory, but what is not generally adopted in practice; that much less force is sufficient to reduce dislocation, than is generally supposed to be necessary. When a bone is luxated, it is retained in that situation, chiefly by the action of the surrounding muscles; and when by any chance these muscles become relaxed and thrown off their guard, as happens in many cases, the bone is replaced by a slight exertion of the surgeon, or even by some accidental motion of the patient. It has even been known, that a dislocated humerus has got into its place without the patient being aware of it. From this we conclude, that the first step to reduce any dislocation, is to produce a complete relaxation of the muscles, which can be done by long and moderate extension, as well as by the application of a great force. When they can make no more re-

sistance, every other obstacle can be readily overcome, if the dislocation be recent, or if the adhesions of the injured parts have not acquired great strength and rigidity.

The 8th chapter contains some cases "*of internal derangement of the knee-joint*," the precise nature of which does not appear to be well understood. The cases, however, are not without interest, and such accidents occur not unfrequently. The derangement which Mr Hey describes, is indicated by a sudden lameness from some untoward motion, which as suddenly disappears; probably arising from some temporary displacement of the semilunar cartilages or lateral ligaments. In some of the patients, the motion of the joint recovered, whilst attempting to walk; and in others, Mr H. succeeded by making a sudden and very complete flexion. We have remarked derangements of other joints of the body, very analogous to that mentioned by Mr Hey. The motion of the joints, in the cases alluded to, became, from some accidental blow or motion, suddenly impaired, and they were restored by pulling, and making rapid flexions and extensions. In some of these cases, though no dislocation had taken place, there was an evident change of form, which could not well be accounted for. It is in injuries of this nature that the reputation of bonesetters is in all probability chiefly acquired. The surgeon, from not being able to detect any distinct displacement, is contented with alleviating any inflammatory symptom; whereas the empiric, by pulling and twisting the joint, succeeds in restoring the displaced parts to their natural situation.

In the 9th chapter, where Mr H. treats of "*loose cartilaginous substances in the joints*," several cases are given, in order to show that that disease may be relieved, by wearing over the joint a well-adapted bandage, in place of having recourse to the very severe and even dangerous operation of removing them by cutting into the cavity of the joint.

The 10th chapter treats of the "*wounds of the joints*," and merely tends to establish a well known fact in surgery—that such wounds, though apparently trifling, are often dangerous; and that the chief object of the surgeon in their treatment ought to be, to prevent the accession of inflammatory symptoms by a powerful depletive system.

The 11th chapter, on "*compound luxation of the ankle-joint*," contains several cases, in order to show that, in a dislocation of the tibia with a fracture of the fibula, not attended by much laceration, the patient will recover by simple reduction; that when a still greater degree of injury has been done to the soft parts, sawing off the ends of the bone, as practised by Gooch, is successful; and that amputation of the limb is seldom necessary.

Some very important cases are added to this chapter, "*of* *compound dislocations of the astragalus,*" which corroborate the practice first adopted by Mr Trye of Gloucester, of dissecting out the bone; its reduction being always impracticable, and amputation of the limb, in such cases, being generally recommended. In one case, a good cure was effected, by merely sawing off the projecting part of the bone.

Chapter 12, "*On retention of Urine.*"—There is no subject which has more engaged the attention of English surgeons, and been followed with more important practical improvements, than the diseases of the bladder and urethra. The works of Mr Everard Home, on these subjects, are certainly entitled to high praise; and several other surgeons have also contributed a good deal, to extend our knowledge in this department of surgery. There are many useful practical hints in what our author has said on the subject; but they want that scientific arrangement and form which the subject acquires, when, instead of considering under one general title of retention of urine, the difficulties and modes necessary for the introduction of the catheter, all the diseases of the bladder and urethra are separately treated of. Thus the artificial discharge of urine must be very differently executed, when the retention proceeds from spasmodic or permanent stricture in the urethra, from paralysis or inflammation of the bladder, or from disease in the prostate gland. Mr H. makes some very judicious remarks on the danger of making an artificial passage by the catheter.

"Whatever method of performing this operation is pursued, the catheter should be introduced with the greatest gentleness. When any obstruction occurs, the design of the surgeon should be to *evade* rather than to *overcome* it. Unsuccessful attempts may render a case extremely difficult, which was not so before. I wish to impress on the mind of my reader, that a moderate force, improperly directed, is capable of injuring the urethra in such a manner as to render the operation almost (and, without a just knowledge of the injury, altogether) impracticable. It must be obvious to every surgeon, that long continued or violent attempts have a tendency to increase the inflammation of the urethra. But the accidents to which I mean particularly to direct the attention *are*, the formation of a kind of pouch in the urethra, and the laceration of its membranous parts." (p. 403.)

To remedy the difficulty which is often met with in introducing the elastic gum catheter past the neck of the bladder, Mr H. employs an ingenious contrivance. This consists in withdrawing the stilet, when the point of the catheter meets with the obstruction, the effect of which is, that the curvature of the instrument is increased, and its point consequently elevated.

Chapter 13, " *Of the Cure of the Procidentia Ani of Adults.*" —In some cases of prolapsus of the rectum, Mr Hey observed a flap of thin skin, immediately round the anus, always to remain externally after the gut was reduced. As this appeared to him to prevent the complete contraction of the anus, and at the same time to prove a source of irritation, he was led to think of removing it, and the operation he found successful. Along with these cases, he has narrated, in his usual copious style, cases of hæmorrhoidal tumours in the rectum, where (as is the most common practice) their extirpation cured the disease.

In the 14th chapter, which treats of " *Cancer of the Penis,*" there are ten cases given in detail, from which we learn no new facts relative to the history of that disease, or of the morbid changes produced in that particular organ. They assist, however, in establishing a general remark, that cancer of the skin (on which part the disease of the penis begins) is more successfully operated on than cancers in any other part of the body.

A case of " *Convulsions after Strangulation,*" is contained in the 15th chapter, in order to show the success of the free use of stimulants after moderate bleeding, where the powers of life remain almost suspended. The case of " *Tumour of the Neck,*" given in the 16th chapter, was one of those swellings which are occasionally met with in various parts of the body, produced from the effusion of blood. The tumour was much diminished, and its nature ascertained by the puncture of a common needle—a very useful and ingenious mode of exploring the contents of tumours. " I have used this mode on several occasions, with great satisfaction and advantage. There are few doubtful cases in which any harm could be done by the puncture of a couching-needle. The contents of the tumour may be generally ascertained by such a puncture, the pain of which is trifling, and the wound is soon healed."—p. 492.

The 17th chapter contains, " *a Case of Empyema,*" successfully treated by discharging the matter, and allowing a canula to remain in the wound, until the discharge ceased. The presence of pus was in this case well marked, not only from the previous inflammatory symptoms, and the difficulty of lying on the opposite side, but by an œdematous swelling of the affected side of the chest.

A very curious affection of the mamma is given in the 18th chapter. Both mammæ of a young female acquired an enormous bulk, the swelling being preceded by a cessation of the menses. One of the breasts was removed, and weighed 11 pounds and 4 ounces avoirdupois weight; the wound healed rapidly, the menstrual discharge was restored, and the swelling of the other gland gradually subsided.

The cases of "*Collections of Pus in the Vagina*" have little interest, being nothing more than common abscesses formed in the cellular membrane adjacent to that part of the body. The contents of the chapter on *Alvine Concretions*, on Atheromæ, and on Abscesses in the Mammæ, contain nothing but what must be familiar to every well-informed surgeon. The remarks on amputation are chiefly intended to recommend those modes of operating in the different cases by which the wound may be healed by the first intention. The observations on the hydrocele of the cord, illustrate the preference of the operation by a complete incision of the sac, to the other modes of operating frequently employed.

The last chapter contains an account of a very interesting case of "*Tumour on the Nose*," which seemed to be an enlargement or thickening of the cutis of that part of the body. The diseased mass was very successfully removed, the disease not returning, and the appearance of the countenance being completely restored.

From these notices, our readers will be enabled to form a general idea, both of the extent and of the kind of information which this volume contains. There are many parts of it which indicate a great talent for practical observation, and there has been no want of zeal and industry in collecting the materials which compose it. Besides, Mr H. seems to have had an ample field for prosecuting his inquiries. From the number of cases which the volume contains, it may be supposed, that many are of little interest. A faithful account of cases must form the true basis of all our practical and theoretical knowledge in medical science; and whoever takes the trouble of collecting such facts, contributes essentially to the advancement of his profession.

We cannot omit this opportunity of expressing our regret, that, on so many occasions, the interest and value of many important cases should be entirely destroyed, by the insertion of trifling particulars, perfectly irrelevant in a medical point of view; and from this censure we cannot always except Mr Hey.

PART III.

MEDICAL INTELLIGENCE.

Report of Diseases treated at the PUBLIC DISPENSARY, *(near Carey-Street,) London, from August* 31*st to November* 30*th* 1811.

ACUTE DISEASES.

	No. of Cases.		No. of Cases.
Febris	18	Scarlatina	2
Quotidiana	1	Rheumatismus	9
Febris remit. infantum	9	Arthritis rheumatica	6
Cynanche	5	Apoplexia	1
Epistaxis	1	Hydrocephalus	1
Catarrhus	85	Erysipelas	2
Pleuritis	2	Herpes zoster	1
Peripneumonia	18	Cholera	6
Enteritis	1	Dysenteria	9
Peritonitis	1	Abortus	4
Hepatitis	1	Pertussis	3
Variola	4		

CHRONIC DISEASES.

	No. of Cases.		No. of Cases.
Cephalæa	28	Colica Pictonum	2
Vertigo	4	Hepatalgia	4
Hemicrania rheumatica	2	Icterus	1
Dysecæa	1	Diarrhœa	19
Dyspnœa et asthma	3	Hæmorrhagia intest.	2
Catarrhus chronicus	30	Marasmus	3
Hæmoptysis	2	Ascarides	4
Phthisis	17	Lumbricus	3
Dyspepsia	31	Hæmorrhois	2
Gastrodynia	17	Enuresis	1
Hæmatemesis	1	Hæmaturia	1
Enterodynia	13	Dysuria	2
Pyrosis	5	Leucorrhœa	9
Colica	2	Menorrhagia	12

CHRONIC DISEASES *continued.*

	No. of Cases.		No. of Cases.
Amenorrhœa	6	Lepra	1
Hysteralgia	2	Psoriasis	10
Chlorosis	2	Scabies	6
Nephralgia	6	Prurigo	8
Convulsio ex dentitione	1	——— cum phthiriasi	1
Epilepsia	2	Erythema papulatum	1
Paralysis	10	——— nodosum	1
Paraplegia	1	——— œdematodes	1
Hysteria	2	Impetigo	2
Palpitatio	2	Ecthyma	2
Asthenia	20	Porrigo	4
Hectica adolescentium	1	Purpura urticans	1
Anasarca	5	Urticaria	3
Ascites	2	Herpes labialis	1
Rheumatismus chronicus	25	Aphthæ	1
Lumbago et Sciatica	5		

The autumnal months, even to the end of October, were extremely mild and warm: the air, in the middle of the latter month, was generally sultry and close, not only in the day, but through the night, although there were frequent rains. During the whole of September, the atmosphere was clear and dry, except on a few days succeeding the equinox, when some stormy weather occurred. The coincidence of this unusual warmth, with the appearance of a splendid comet during the same period, led many persons to conjecture, that it was the effect of the influence of the latter. In the last week of October, however, the weather became chill and boisterous; and during the whole of November it has continued wet and foggy, though mild, with occasional high winds. From August to the present time, the wind has been unchangeably from the W., with the exception of four or five days in the middle of November, when it veered to the north.

During the first half of the period comprehended by this report, a general good health seemed to prevail; even the autumnal diseases, which might have been expected to occur during the warm weather, such as cholera and bilious fever, were not often seen; and all the contagions were nearly dormant. Of the eighteen cases of fever at the head of the list, only one exhibited any approximation to the typhoid character: four or five of them might be classed under the denomination of synochus biliosa; but the remainder were slight, and of short duration, without any considerable derangement of the gastric organs, and without any affection of the head. In some of the uncleanly parts of Clerkenwell and St Luke's, beyond the district of our dispensary, several instances of typhus have occurred, and some of the patients were received into the House of Recovery under my superintendance, after part of their families had been carried off: but I have not learnt that it has existed in any other district of London. The rains and fogs of the last six weeks, however, have multiplied diseases, more especially those of the chest and of the bowels, to a considerable extent. One half of the acute catarrhs, and three-fourths of the peripneumonies and chronic catarrhs, have been admitted within the present month. Children have suffered most particularly from pneumonic affections of great severity, and in some instances fatally: for soon after the commencement of the pneumonic inflammation, the fever began to assume a low type; the tongue became loaded with a thick brown crust; the alvine excretions became muddy and offensive, increasing above the quantity of the ingesta; and all nourishment was refused; while, at the same time, the cough was extremely distressing, and the dyspnœa very great. The children of persons in better circumstances have been equally affected by this form of disease with those who are brought to dispensaries. I have found them struggle through a very untoward course of symptoms, where leeches and blisters were applied to the chest, even so late as the fourth day, and the bowels daily unloaded of their morbid secretions by calomel, (aided, if necessary, by other laxatives), until the fœcal discharges assumed a more natural hue and odour; while small doses of squills, ipecacuanha, or digitalis, were administered, at first in a saline draught, and afterwards, as the powers of the constitution began to fail, in a little camphor mixture, or some gently cordial vehicle, which seem to aid the expectoration, as well as to support the strength. Light nourishing liquids were at the same time given often in small quantities. These cases, after following the course of an ordinary gastric or low nervous fever, did not generally terminate in less than a fortnight or three weeks. This form of disease is still prevalent; and, in several families, more than one child has been attacked with it.

In adults, diarrhœa has been prevalent, together with the symptoms of catarrh, in a great number of instances; so that, besides the number of cases set down under the head of diarrhœa, several of those under the head of catarrh were also affected with this disorder of the bowels. The cases of dysentery have not been very severe; in only four of them was there any discharge of blood with the evacuations. The instances, in which the headach was the principal subject of complaint, have been numerous, and the great majority of them were connected with constipated bowels, and relieved by restoring the regular evacuation, and amending the state of the stomach. The rest were chiefly rheumatic affections of the integuments of the cranium, or of the muscles of the face and neck. The case of apoplexy was a metastasis, to use a common phrase, of acute rheumatism, and terminated, as such metastases but too commonly do, fatally.

The case of erythema papulatum,* consisting of large diffuse patches, of an irregular figure, of a vivid red colour, but with a livid tint in the central parts, (at the period when I first saw it, the papulæ having then disappeared), was attended with a considerable degree of fever, for six or seven days, with acute pains and great tenderness of the limbs: these symptoms gradually diminished, and the eruption desquamated in somewhat less than a fortnight. The colour was considerably more vivid than the representation in Dr Willan's plate. The case of purpura urticans, which is well represented by Dr Willan,† was accompanied with a most acute pain in the belly, with constipation and fever, which supervened after the eruption had continued about a week, in which state the patient was bled, with immediate relief to the pain and fever, and the bowels were soon afterwards unloaded: but this state was succeeded by several attacks of violent spasmodic pain in the stomach, which required powerful opiates for its relief. The patient very slowly recovered under the use of cordials and tonics. No cause could be assigned for either of these disorders.

Three cases of a chronic cutaneous disease, attended with considerable constitutional derangement, deserve to be noticed, principally with a view to the diagnosis; for it bears a close resemblance to a syphilitic form of eruption in many respects. It consists of an extensive eruption of circular tubercles, or slightly elevated spots, with a flat smooth surface, of a reddish brown colour. These spots are all nearly of equal diameter, (except on the forehead, where they are smaller), not much exceeding the superficies of a split pea, and so thickly set, upon the arms and face, as to leave but little interstice of healthy cuticle: on the chest and body they are less numerous and close. On all these parts, the surface of the spots remains smooth, showing a tendency to desquamate, but not actually forming scales; but, on the legs, where the spots are larger, and thinly dispersed, they assume the ordinary appearance of *psoriasis guttata*,* *i, e.* of white scales adhering to a red surface. On the forehead, about the roots of the hair, they are smaller and more acuminated, like small *vari*. Connected with this eruption, there has been sore throat, with whitish specks on the tonsils; some degree of ophthalmia, especially of the tarsi; a considerable languor and depression of strength, and loss of appetite; with a quickened and feeble pulse, and much pain in the limbs. The disorder occurred in two women and a man, in none of whom had there been any primary syphilitic symptoms; neither was there any tendency to pustule or ulceration, as in syphilitic eruptions: yet, in one of the women, it appeared to originate from contagion; for it first appeared in her husband, in whom it was said to have remained six weeks, during the last fortnight of which it began to appear in her, and continued during the same period, as well as in the two other patients. In its decline, the spots gradually contract in size, leaving larger interstices, which assume a more natural colour, (for the skin itself is brownish in the height of the disease), and the spots thus diminish until they entirely disappear. The patients recovered, without the use of any mercury, taking the mineral acids alone, or combined with bark or sarsaparilla; and, in the last instance, while using the sarsaparilla only.

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* See Dr Willan's Treatise on Cutaneous Diseases, Ord. III. Gen. 6. spec. 4, and Plate xxxi. Fig. 1.

† Ibid. Ord. III. Gen. 5. and Plate xxx. Fig. 1.

On showing one of these cases to my much respected colleague, Mr John Pearson, he pronounced them decidedly not syphilitic, notwithstanding the similarity of the appearances, especially on the forehead; and observed that he had found this species of eruption infectious by contact. He is disposed to refer it to scrofula.

Bedford-Row, November 30, 1811. T. B.

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* In this account I have referred the eruption to psoriasis: but on the upper parts of the body, where it is simply tubercular, it would seem to be more correctly arranged under *vitiligo*.

A Table of the principal Diseases in one of his Majesty's sloops of war, complement 121 *men, from December* 11, 1810, *to November* 30, 1811. By WILLIAM DAVIES, *Surgeon.*

DISEASES.	No. of Cases.	Sent to Hospital.	Discharged to Duty.
Febris - -	11	1	10
Cynanche tonsillaris	12		2
Pleuritis - -	6		6
Pneumonia -	4	1	3
Catarrhus - -	13		13
Gastritis - -	2	1	1
Nephritis - -	1		1
Rubeola - -	1		1
Herpes zoster -	1		1
Dysenteria -	7		7
Rheumatismus -	4		4
——— chronicus	7		7
Arthritis rheumatica	2		2
Ophthalmia -	1		1
——— tarsi -	1		1
Hæmoptysis -	1		1
Phthisis - -	2	2	
Diarrhœa - -	16		16
Ascaris lumbricoides	3		3
Gonorrhœa -	10		10
Orchitis - -	5		5
Lumbago - -	1		1
Abscess - -	5		5
Ulcers - -	3	1	2
Contusions and sprains	10		10
Wounds and accidents	5		5
Burns and scalds -	3		3
Pernio - -	2		2
Earache - -	2		2
Psora - -	2	1	1
Paronychia -	2		2
	135	7	128

None Died. None Invalided.

Remarks.

THE ship sailed from Spithead the 1st of January 1810. The weather at this time was excessive cold, snowing for several days successively. We left port tolerably healthy, having previously sent those with severe and acute complaints to the hospital at

Haslar; at this time we had many with gonorrhœa; and the cold weather before we reached Lisbon, brought on a number of catarrhs and affections of the breast, which did well under a slight antiphlogistic treatment. In many of the gonorrhœal cases, the symptoms disappeared, and, as the weather became milder, returned with inflammation of a testicle, attended in some with a recurrence of the discharge from the urethra, dysuria, &c. which very soon yielded to slight mercurial courses. These symptoms may be supposed to have arisen from the suppression of the discharge in cold and bad weather, particularly as the men were not excused from duty, when they applied with their first symptoms. One very obstinate case of chronic rheumatism, accompanied by eruptions similar to erythema mercuriale, but slighter, and without fever, occurred in a marine belonging to his Majesty's ship Triumph, at the time her crew was affected by the mercury saved from the Spanish ships wrecked at Cadiz, and who, with many others, were sent to the hospital. I tried the nitric acid, till he had taken 200 drops in the course of the day, but without much success. We remained very healthy the most part of summer; in the latter end of July and August, however, diarrhœa and dysentery were somewhat prevalent, which can be accounted for only (as far as I believe) from constant heat and dews at night. The thermometer in the sun, 100; in the shade, 76 to 80 Ft. on an average. They were not contagious, as very little fever was present in some, in others not any, though many of them had severe griping and tenesmus, and passed, several days together, slime, or mucus and blood. Scybalæ, when passed, were always attended with relief. I hope not to be accused of *vanity* in giving an opinion of these two diseases, as they hitherto have come under my own observation. Several cases of diarrhœa and dysentery, appear different states of the same disease; where one has been prevalent in some degree, the other has appeared also:—To confirm this, in some cases the patients had frequently *loose fæcal stools*, preceded by pains in the bowels, unattended with any tenesmus for several days, and then were affected with symptoms that more essentially constitute dysentery; frequent inclination to stool, *with tenesmus*, little or no evacuations; if any, they were coagulated mucus, and watery, or mucus and blood, and occasionally scybalæ; when these became mitigated, the symptoms were those *first* mentioned, and generally comprehended under diarrhœa. Both got well by the same treatment,—opiates and purgatives combined. I experienced great benefit from the use of digitalis in a case of hæmoptysis. On the whole, we may be considered to have been very healthy. We are just returned from the southward; the few that now apply are affected with catarrhs.

Plymouth, *Nov.* 30, 1811.

Pharmaceutical and Medical Observations, communicated to Dr KELLIE by JAMES CASSILS, M. D. Physician, Kendal.

1. *Black Drop.*

The late learned Dr Parr, in his excellent Medical Dictionary, thinks that neither of the preparations of opium that I gave you an account of, in the first volume of your Journal, is the genuine *black drop:* Perhaps it may be so, particularly with the tincture prepared from rectified spirit, and it may differ in some trivial respects from the other with vegetable acid; but I am of opinion that it is equally efficacious with that medicine.

There is an article in the 2d volume of the abridged edition of the Philosophical Transactions, which induces me to believe, that the famous Van Helmont was the original inventor of this remedy. I think it unnecessary to quote the formula.

2. *Tincture of Lavender.*

Although this medicine may not be reckoned of much use, yet as it has a place in the British Pharmacopœias, and as it is of some consequence to facilitate pharmaceutical operation, I beg leave to recommend the following formula, it being, in my judgment, as good as any other, and prepared without any article undergoing the process of distillation.

℞ Cort. cinnamom. lauri ℥ij.
Caryophil. aromat. ℥j.
Nucis myristicæ mochat. ℥ss.
Ol. volat. lavend. spicæ ʒiij.
——— rosimarin. officinal. ʒij.
Lig. pterocarp. Santolin. ℥ss.
Alcoholis,
——— diluti, utriusque lb. ij. Macera per dies septem, et cola.

3. *On the Solvent Powers of Milk.*

Amongst the various solvents of camphor, and those substances called gum-resins, there is one which I have not found mentioned by any writer on chemistry or the Materia Medica that I am acquainted with, namely, milk. By triturating camphor with milk, it is nearly as readily dissolved as with rectified spirit; and this property I apprehend does not altogether depend upon the cream constituting one of its component parts; for skimmed milk, whey, and the coagulable matter obtained by spontaneous separation, are more or less solvents of camphor. The latter, when dried, and made into a pulp with distilled water, dissolves it in considerable quantity, and forms a beautiful white solution. As the above fact is not generally known, I beg leave to suggest, that it may be of considerable use in performing some pharmaceutical operations, and particularly where economy is an object, as in infirmaries and other charitable institutions; for instance, the emulsio camphorata may be very readily prepared in this manner.

℞ Camphor. ʒss.
Lactis vaccini ʒiv. Solve, et adde
Aq. fontanæ ℥viiss.

In this preparation, none of the camphor is lost by precipitation. Again, in preparing the tinctura opii camphorata, I have substituted the milk for proof spirit, and find it very useful in coughs, when I think an opiate necessary; nay, it is perhaps a more safe medicine; for the spirit, that forms a principal article in the common paregoric elixir, is more frequently calculated to excite coughing than to remove it.

Farther, when the external application of camphor is wished for, without the addition of alcohol, it may be very easily applied in the following embrocation, which may be called lac camphoratum cum sapone.

℞ Camphor. ʒj.
Lactis vaccini ℥iv.
Saponis mollis ℥j. M.

Lastly, cream forms an elegant liniment with camphor, which is not soluble in water.

From this property of milk in dissolving camphor, I was led to try its effects on the gum-resins, and found that it dissolved assafœtida, gum ammoniac, guaiacum, and myrrh, sooner than water; and I think it a better vehicle for the administration of these remedies, as it not only forms a more perfect solution, but renders their taste less unpleasant. Milk also dissolves rosin and pitch, balsam of Peru and Tolu in small quantities. By the prosecution of these experiments, I have no doubt but some of your ingenious correspondents may be able to throw farther light on the above interesting facts.

4. *Scrofulous Ulcers.*

Notwithstanding the number of remedies recommended by practical writers for the cure of scrofulous ulcers, unconnected with caries of the bones, it is to be feared, that by far the major part are useless, and that not one is to be entirely depended upon. But, after some experience, I beg leave to call the attention of my professional brethren to an external application, which I flatter myself is justly entitled to their confidence; for neither myself, nor those of my friends who are acquainted with it, have ever been disappointed. It is nothing else than a strong, sometimes a saturated solution of the sulphate of zinc in water. I order linen rags to be dipt into as strong a solution as the patient can bear, and applied to the sore two or three times a-day. If it causes considerable smarting, (which is often the case at first), I desire the patient to moisten the rag over the part affected with cold water, till the pain is rendered more tolerable, and by degrees to apply the strong solution, as directed, while the disease remains. Sometimes a slight discharge of blood takes place, and at other times a few pimples appear round the margin of the ulcer; but, generally speaking, in a few days, an healthy action of all the diseased part takes place, genuine pus is discharged, sound granulations are formed, and in a few weeks cicatrization is completed.

In the worst cases that have come under my care, no internal remedies were administered, so that the whole efficacy of curing scrofulous sores, rests with the strong solution of sulphate of zinc; and I cannot avoid saying, that the above species of ulcer will be no longer considered an opprobrium to the healing art. For the knowledge of this invaluable remedy, I am indebted to Mr Somerville, an excellent surgeon to the General Infirmary, Stafford.

Since I have written the above, I have seen the second edition of Mr Hey's Practical Surgery, and am happy to add, that my experience of the good effects of this medicine are corroborated by that gentleman. He indeed only recommends a weak solution of this metallic salt, viz. ʒss. in a pint of water, to which is added, an ounce of spirit of rosemary, and a dram of spirit of lavender; and, even in that diluted state, it is found to possess very active powers.

Imposition practised upon the Editors.

It is with the most painful feelings, that we have now to call the attention of our readers to a most unwarrantable, and almost incredible transaction. About the middle of June, when the last sheet of our Journal for July was at press, we received a letter, purporting to be a communication from Mr Simmons of Manchester, and signed with his name. Having no reason to suspect its authenticity, and never dreaming of imposition, we took the opportunity of the press being accidentally stopt, to announce, in a part of the impression, its receipt. Unluckily none of these Numbers, in which this notice was inserted, went to Manchester, otherwise the deception might have been discovered in time to have prevented the trick from taking effect.

In about a month after the publication, we were astonished, and mortified, by receiving a letter from Mr Simmons, informing us, that the communication was *not* written by him; that the whole was a *fabrication*; and the affixing his name to it a *forgery*.

It instantly became our duty to use every means in our power to discover the author; to declare publicly our sentiments of the transaction; and to redress, so far as we can, the injury we have been made the instruments of doing to Mr Simmons's feelings and professional reputation.

But Mr Simmons is not the only person injured by this unprincipled transaction; both we, the editors, and the profession at large, have been grossly abused.

We trust that the instance is solitary with regard to us, and very rare in general. Were such conduct frequent, the credit of all Journalists must be effectually destroyed, and the public would justly withdraw its confidence from them. Upon the injury done to the profession at large we need not expatiate, for even the subscription of a respectable name would no longer be sufficient to give authenticity to their communications; and the false proverb, "*medical facts, medical lies,*" which has hitherto been uttered only by the designing or the thoughtless, might then become a truth.

The imposition is equally calculated to injure the reputation of a respectable individual, of ourselves, and of the profession; and we are all interested in detecting and exposing to universal indignation its author.

So far as Mr Simmons is personally concerned, we have great pleasure in making public the very satisfactory resolutions of the Weekly Board, and of the Faculty of the Manchester Infirmary. In the sentiments which they express, we, in common with every person jealous of the honour of the profession, heartily concur.

No. 1.—*To the Trustees of the Manchester Infirmary.*

Gentlemen—With permission, I will lay before you the last Number of the Edinburgh Medical and Surgical Journal. It contains an article, purporting to have come from me, of the existence of which I was totally ignorant, till it was pointed out to me in the Journal.

This letter is a FORGERY.

But, as a case of lithotomy did occur at the infirmary, in September 1810, manifestly alluded to by the writer, his FALSEHOOD shall next appear upon indubitable proofs.

In that case, the section of the bladder was made with the gorget; but the stone was extracted at the time of the operation, without any enlargement of the wound. This proof is in itself sufficient; but it is still further confirmed by the fact, that, during the operation, from certain obstacles that presented, the staff was reintroduced into the bladder, to serve as a guide to the forceps, which led to the immediate removal of the stone. From this it is absolutely certain, that the gorget had not taken an improper direction, as FALSELY insinuated at the conclusion of the FORGED letter: and consequently no *blame* is imputable to the operation.

But, from *internal evidence*, the letter was written, or the materials for it were supplied, by a person who was present at that operation. On this ground it is, and not on any personal consideration, that I have thought it my duty to submit the business to your notice.—I have the honour to be, Gentlemen, yours, &c.

George Street, 18*th November*, 1811. W. SIMMONS.

No. 2.—*Manchester Infirmary*, 3*d December*, 1811.

Dear Sir—I have much pleasure in obeying the orders of the Weekly Board of the 25th ult. in transmitting to you a copy of the proceedings of the Board of the 18th November, and of the Faculty connected with the charity thereupon.—I am, very truly, dear Sir, yours, &c. J. HIBBERT.

W. Simmons, Esq. Surgeon, Manchester.

No. 3.—*Manchester Infirmary Weekly Board*, 18. *November* 1811.

Mr Simmons having sent a letter to the Board, respecting a letter which had appeared in the Edinburgh Medical Journal of October last, purporting to be written by Mr Simmons, but which Mr Simmons declares is a forgery, and that it contains a gross misrepresentation of the operation which was performed at this infirmary;

Resolved unanimously,

That it appears to this Board, by the foregoing communication from Mr Simmons, that the object and tendency of the forged letter was to lessen the professional character of Mr Simmons; and, he being one of the Faculty connected with this hospital, that its reputation and success might consequently be injured.

That it must have been written by some person present at the operation, or by some one to whom such person related the circumstances; and therefore proves, that there has been a breach of that confidence which is placed in every attendant upon operations. And, that this Board is always anxious to support the Faculty in the unrestrained exercise of their duty, and in the maintenance of their professional character, upon which the welfare of the charity so much depends.

Resolved unanimously,

That a copy of Mr Simmons's letter to the Board, together with the foregoing resolution, be laid before a meeting of the Faculty, specially to be convened for that purpose; with an assurance that this Board will be very glad if the Faculty can suggest any means by which the author of so infamous a transaction may be discovered.

Resolved unanimously,

That the secretary be directed immediately to take the usual steps to procure a meeting of the Faculty, agreeably to the foregoing resolution. JAMES HIBBERT, Chairman.

Resolved, *Weekly Board, 25th November, 1811.*

That so soon as the resolutions of the Faculty, consequent upon the communication made to them by the Board, last week, are in possession of the treasurer, that he be authorized to transmit a copy of the same, and of the resolutions passed at the Board, to Mr Simmons, as the reply of the Board to his letter of the 18th instant. JAMES HIBBERT, Chairman.

At a meeting of the Faculty belonging to this hospital, summoned at the request of the Weekly Board, and held November 22d, 1811, Present,

Dr Bardsley, Dr Henry, Dr Winstanley, Mr Hamilton.

Resolved unanimously,

1st, That this meeting highly disapprove of the publication of which Mr Simmons has complained in his letter to the Weekly Board; and that they consider it not only as a violation of professional honour and confidence, but as an insidious and unwarrantable attack on Mr Simmons's professional character.

2d, That, notwithstanding our sense of its extreme impropriety and injustice, we are not aware of any measure, which it is within our province to take for the discovery of the writer, or that we can do any thing more than express our strong condemnation of the forgery, and of the motives by which its author has been actuated.

3d, That the above resolutions be sent to such of the physicians and surgeons connected with the hospital, as have not attended this meeting, and also the communication from the Board, with Mr Simmons's letter. S. A. BARDSLEY, Chairman.

Gavin Hamilton, J. A. Ransome, Wm. Henry,
John Thorpe, J. Ainsworth, Wm. Winstanley,
John Mitchell, Edward Holme.

Theatre of Anatomy, Bartlett Court, Holborn.

Mr Armiger, surgeon-extraordinary to his Royal Highness the Duke of Kent, and surgeon to the Eastern Dispensary, will commence his spring course of lectures on Anatomy, Physiology, and Surgery, on Monday, 20th January.

Practical Anatomy, and Demonstrations, 10 in the morning. —Particulars may be known by applying at Mr Armiger's, 17 London street, Fenchurch street, or to Mr Highley, medical bookseller, 24 Fleet-street.

London Hospital.

Dr Buxton's spring course of Lectures on the Practice of Medicine, will be commenced about January 20th.

Erratum.—Page 19, line 28, *for* acetabula *read* thyroidal foramina.

THE

EDINBURGH

MEDICAL AND SURGICAL JOURNAL.

1. APRIL 1812.

PART I.

ORIGINAL COMMUNICATIONS.

I.

Some Observations on Intus-susception; with an Engraving. By Mr Howship, Fellow of the College of Surgeons in London.

Cases in which some parts of the intestinal canal are found after death to be in a state of intus-susception, are not very unfrequent. In many instances, from the prevailing laxity in the general muscular structure of the bowels, there is every reason to suppose, that in certain constitutions this state may repeatedly occur without the least inconvenience, the parts being restored to their proper relations whenever solid contents happen to pass, in their way, through the intestines. This accident, however, in a habit of body possessed of much tone, and disposed to inflammatory action, is productive of consequences generally, if not always, fatal. The obstructed portion of the bowel becomes a cause of great irritation in the canal, and, when inflammation has once come upon parts so circumstanced, the patient scarcely ever escapes death.

The small intestines are much more liable to fall into this state than the large; and, upon this account, it has, by many practitioners, been considered as a complaint which is in every instance without remedy. But we know by experience, that now and then the rectum has been found obstructed from this cause; and, however rare such examples may be, they are certainly worthy of attentive observation, and ought to be considered highly interesting in a practical view, the lower portion of the bowel being, to a certain degree, within the reach of surgery.

With regard to the treatment of such cases, mechanical distension, by the injecting of warm fluids, has been proposed; but although, in the early stage of the complaint, such a plan may be capable of doing good, it has been tried, and found useless, where inflammation had previously established itself.

When intus-susception occurs low down in the rectum, it is presumed that its existence might be ascertained, and perhaps even the complaint removed, by the careful introduction of a bougie, so large as to occupy the usual diameter of the intestine, and so curved and directed as to follow the natural turns of the gut, almost up to its superior flexure towards the colon. Such an operation, however, to be dexterously performed, requires an accurate idea of the situation and extent of the intestine, in order that the surgeon may be able to determine, beforehand, what size and length of the instrument will be necessary, according to the age of the patient, to answer the end proposed.

The following case is an instance in which this mode of treatment might possibly have saved the patient; but unfortunately the real cause of the child's death was not suspected, till the disease was found upon examination of the body.

A Case of Intus-susception of the Rectum.

In July 1800, a fine healthy female child, at the breast, was four months old, when it was first observed that there was occasional sickness at stomach. This sickness soon became more frequent, and induced the mother of the child to conclude that the milk disagreed. Light food, therefore, in various forms, was substituted; but this was found to agree no better than the breast-milk had done before it. Every thing that was swallowed was rejected soon afterwards.

In this state, with little variation, the infant remained for the space of three weeks, when a small quantity of blood was found upon the napkin, passed with a mucous slimy stool, attended with great straining, restlessness, and apparently much pain. The parents, being alarmed at the appearance of blood, immediately procured medical advice.

Gentle aperients were now ordered; but they could not be made to stay on the stomach. The child sickened, and the physic was thrown up. After various ineffectual trials, as it appeared that no relief was likely to be obtained by these means, a warm relaxing injection was ordered, and this was carefully thrown up; but the nurse said it all returned immediately without bringing any thing material with it. The following day a second injection was ordered, and given with no more effect than the first.

Suspecting that there might have been some want of attention on the part of the nurse to explain this failure, the surgeon determined that he would himself ascertain, whether an enema might not be so injected as to operate more successfully. He was, however, not more fortunate than the nurse had been, for his attempts failed. Finding there was no chance of procuring a passage by the bowels, little more was done; the child was directed to be occasionally immersed in warm water, and this seemed to abate the heat and restlessness, but produced no permanent relief.

The urgency of the tenesmus, the inability to keep any thing on the stomach, and the frequency in passing blood, all continued to increase rather than decline, attended with repeated attacks of most violent pain, for the space of six days from the first bleeding; when the infant died, exhausted by her sufferings.

On examination of the body, the following were the appearances. The viscera of the thorax were sound. In the abdomen, the stomach was apparently healthy. The small intestines had evidently suffered considerably from inflammation, and were, upon several parts of their surface, changed from a florid red to a dark and lurid colour. The large intestines appeared, on the first glance, to be involved in confusion. There was, however, no difficulty in tracing the rectum upward from the pelvis, where it was very large, and felt, when pressed, as if it was full of a dense fleshy substance.

Upon a more accurate examination of these parts, it appeared, that the lower portion of the colon, and the upper part of the rectum, had passed down into the lower extremity of the gut, producing a very extensive inflammation of the rectum, colon, and even the small intestines. The degree of stricture was very considerable, so that when the external covering of the intestine rectum was divided with a pair of scissars, the contained mass instantly sprung forward, occupying at least double its former space.

The villous surface of the projecting extremity of the inverted intestine was of a dark and grumous colour, being covered partly with blood, but principally with a ropy mucous matter.

In the annexed figure, the parts are seen as they appear in the wet preparation; the rectum was cut out very low down in the pelvis; so that it seems probable, that the bleeding of the parts might, in this case, have been rendered more frequent, in consequence of some degree of accidental violence at the time of giving the injections; for the tube could scarcely have entered the gut, without pressing into and disturbing the inflamed mass of the intestine. The extent of the intus-susception is sufficiently apparent upon the figure, as are the longitudinal bands of the rectum.

Mill Street, Hanover Square, December 12, 1811.

II.

Case of Caries in the second Cervical Vertebra, and consequent fracture of its Dentiform Process. By A. G. Kymell, Assistant-Surgeon, 2d Battalion, 14th Regiment of Foot.

William Walker, private soldier, aged about 30, of a scrofulous habit, and, to make use of his own expression, very much subject to swellings round the neck, which he said alternately disappeared and returned, sent for me on Sunday the 12th of May 1811. I found the upper and posterior part of his neck considerably swelled and inflamed, without any constitutional derangement; he was free from fever, and said that nothing but the pain, which was produced by swallowing solid food, denied him full enjoyment of his meals. Upon examining his throat, nothing unnatural could be discovered. The tumour was very tense and painful, and the patient had been using fomentations of vinegar, which he told me gave him ease. I bled him, ordered a poultice to be applied, and gave sulph. magnes. et infus. senn. to open his bowels.

Monday.—He had several stools; appetite continued good. The tumor was more diffused, and patient felt much relieved.

Wednesday.—The inflammation and swelling subsided, and the patient's general health was as unimpaired as on the preceding days; so much so, that I did not consider him as a subject for the hospital.

Thursday.—The patient complained of general lassitude, and an extraordinary numbness in his legs, which he found unable to support him. Pulse 72 in a minute, and soft. His head was bent forward, and I thought I perceived an unusual prominence of the upper cervical vertebræ. I asked him whether he had fallen, or in any way hurt himself; he answered me in the negative: and when I desired him to hold up his head, he said he had not strength to keep it in a proper posture; and some of his comrades, who were present, added, that he always had had a stiff neck, and carried his head stooping. I repeated the question, whether he was certain that he had not hurt himself; he said he was quite sure he had not.

On Friday, the 17th, I was alarmed to find him in a paralytic state, and incapable of the slightest motion. His countenance was of a livid hue, and he spoke with difficulty; the extremities were deprived of sensation and their natural warmth. Suppression of urine and feces. Seeing him in such a state, I was instantly struck with the idea, that his habit of stooping might, by the constant pressure of the odontoid process of the dentatus on the transverse ligament of the atlas, have occasioned an absorption of this ligament, and the process, thus broken loose, by compressing the spinal marrow, produced the above symptoms. Particular care was taken to keep the patient's head in its natural and upright position, and he was taken into the hospital; although the severity of the symptoms gave not the least hope of recovery by the only means, anchylosis of the bones, in the supposed case of absorption, or rupture of the transverse ligament of the first vertebra. I introduced a catheter, and, on raising the patient in the bed to evacuate the urine more freely, I had the mortification to see him suddenly expire.

Dissection.—I separated from the neck of the deceased, the three uppermost vertebræ, in order to be able to examine them more minutely. I found my preconceived opinion of the nature and cause of the disease erroneous, but that the dentiform process of the second vertebra was fractured at its base, having been attenuated by caries. The anterior and posterior surfaces of this process were corroded. The body of the vertebra itself was nearly destroyed by caries, which had attacked its anterior as well as posterior surface; both the right and left capsular ligament, connecting the first and second vertebra, had lost their inferior hold. The internal as well as external common ligament of the vertebræ destroyed where they pass over the second vertebra, but no visible injury done to the spinal marrow or its membranes. No collection of matter was found around, or in the vicinity of the diseased bone; and this caries must therefore have been of that kind which Richerand, in his Nosographie Chirurgicale, tom. 1. p. 487, mentions, speaking of diseases of the vertebræ. He says, "D'autres fois, l'os est atteint d'une carie sêche, espèce de vermoulure, dans laquelle les absorbans paroissent s'être emparés de ses molécules, de manière qu'il ne reste aucun debris de la destruction." On making the incision through the integuments and muscles, to cut out the vertebræ, purulent matter oozed out of some glands lying in the way of the scalpel.

After the man's death, a serjeant related to me the following accident, which he said happened to the deceased on Sunday the 12th (the day I was first called to him.) He related, that Walker, while looking on some persons playing at fives, suddenly threw his head backwards, on the ball taking a direction towards him, and immediately exclaimed to the serjeant, that he felt as if something had given way in his neck. So little can a medical man sometimes depend on his patient's veracity; and so liable is he to form a false diagnosis! The fear of being laughed at by his comrades for having broken his neck, was perhaps this unfortunate man's motive for concealing the truth, which, however, in this instance, proved of no consequence as to the termination of the disease.

Malta, 8*th November*, 1811.

III.

History of a Fever which prevailed in the Suburbs of Paisley; with an account of the utility of Blood-letting in imperfect crises, slow convalescence, and lingering ailments. By James Muir, Surgeon, Paisley, and Member of the Faculty of Physicians and Surgeons, Glasgow.

In the most elevated situation, and in a part of the suburbs to the south of this town, chiefly inhabited by working people, a fever prevailed in January, February, and March 1811. During the two first months, the weather was uncommonly severe, with almost constant alternations of snow, sleet, rain, and frost, so that it seldom continued in the same state for 24 hours together. Of thirteen families which I attended, 32 individuals were seized with fever, only one of whom died. This patient was seen for the first time on the 9th day of the disease, and died on the 12th, after passing a great quantity of grumous blood, by stool.

The fever generally commenced with shivering; in some there was excruciating pain of the back, and in others severe headach; the skin was dry; the tongue loaded or very red; the pulse quick, in many instances almost imperceptible, and in some, for many days, in a fluttering state. During the disease there came on much watchfulness, delirium, and seeming fatuity; in many cases there was pain in the abdomen, and in a few, painful micturition. The feces were commonly brown, thin, and very fetid; in many instances, the bowels were loose, and in a few costive: both states were equally benefited by purgatives. In all cases there was great prostration of strength, and deep sickness. At the end of fifteen or sixteen days from confinement, signs of convalescence were observable, though there was seldom a well marked crisis.

The headach was relieved by opening the temporal artery or jugular vein, and blistering the back of the neck. Cold affusion, even when employed on the first day of attack, did not stop, though it seemed to render the disease milder. Purgatives at first, and laxatives afterwards, afforded relief; but at the commencement, emetics were entitled to the preference, as they sometimes arrested the progress of the disease at once, and invariably moderated, when they did not stop its course.

One-fourth of the whole number relapsed, and the convalescence of many was extremely slow.

Six of the thirty-two patients continued, after the 18th day, without any mitigation of the fever, which extended in some of these to the 4th and even to the 5th week. Two of them were much distressed with headach, one of whom had also for a few days slight pain in the breast; the other, who was at times in a very listless drowsy state, with flushed face, had severe pain in the lumbar region; the pulse, in both, seldom exceeded 100; was feeble, and sometimes fluttering. Three had slight cough, only one of whom had any pain in the chest; but they all complained of a sense of weight or oppression at the pit of the stomach. Having failed to relieve the headach and oppression at the præcordia, by purgatives, saline mixtures, and blisters, I had recourse to the lancet, in hopes of diminishing the headach; removing the load from the præcordia, and of giving a favourable direction to a crisis. The quantity of blood drawn did not exceed 11 ounces in any case; and in none was it necessary to repeat the operation, as the morbid affections of the head, the chest, and the belly, yielded immediately, or soon after the bleeding; the thirst abated, and the appetite returned. In hectic fever, when no cure can be effected, I have found small bleedings as successful as in the present instances, for relieving oppression at the pit of the stomach, pain of the breast, and cough. They have been often of greater advantage than blisters, opiates, and all expectorants, and indeed will be found useful in all diseases where there is pain or oppression at the præcordia. In some other cases of fever, I have found it necessary to repeat the venesection, before the præcordia was entirely relieved. In the sixth case, where there were much tenderness and pain in the abdomen, and the stools were of a brownish colour, bloodletting was not employed, but a combination of calomel and opium removed the pain, restored the above discharge to a natural colour and consistence, and procured a crisis.

Five of the patients, after the usual period of convalescence, though free from fever, made almost no progress to recovery. One of them, while under the disease, was very delirious, and cried or screamed incessantly; he was deaf, passed numerous black stools, and had derived some relief from blistering. Although, after the fever, he took his food well for some weeks, he gained neither strength nor appearance; his skin was hard, his bowels loose, and his temper peevish:—after losing a few ounces of blood, he was daily nourished by his food, the diarrhœa instantly ceased, and, from being extremely emaciated, he became soon plump and healthy. Another was freed from general debility, and cured of cough, by the detraction of eight ounces of blood. A third continued to languish without any particular complaint; but gradually attained health and strength, after a moderate bleeding. In the other two, who were young men, about fifteen years of age, the appetite and healthy appearance returned; but they continued stationary with respect to strength, and, though able to work a little, were soon fatigued. Bloodletting, to the extent of nine ounces, was followed by the same happy effects as in the three preceding cases; and one of these patients was almost instantly relieved from a strong palpitation at the heart, a symptom which I have observed in other cases as a sequel to fever. Of these five patients, only one was bled during the course of the fever.

Though fever sometimes proves a cure for other diseases, yet we often hear patients date the commencement of some chronic complaint, as headach, dyspnœa, palpitation of the heart, dyspepsia, wandering pains, &c. from the period when they laboured under fever, which will generally be found to have been slow in its progsess, imperfect in its crisis, with a tedious, incomplete recovery. Nature could not repair the injury, or remove the obstruction by her feeble febrile efforts. Might not these evils, in many instances, be averted by the safe and simple means employed in the preceding cases, when, after removing a slight load, the system seemed to start into renewed life and vigour? It will be fortunate if, in this manner, much of the suffering and disease which then originate to embitter human life, can be prevented.

Few situations are more disagreeable to a medical practitioner, than, after having attended the progress of an acute disease, to see his patient long in attaining a confirmed state of health, or his sufferings renewed by relapse. Protracted convalescence, and relapse, in most cases, are occasioned by irritation of the stomach or bowels, and by exposure to cold. In the tender state of the chylópoetic organs after fever, there is often too great a craving for food, and patients are apt to be injured by a small quantity of animal food, or by lighter diet in too great quantity. The danger of indulgence, or from cold exposure, is great, and patients should be strongly forewarned of the consequences.

Fevers are generally dangerous only in proportion to the degree of local affection, which is often in a great measure overlooked in the first attack, but is more strikingly displayed in relapse. In such cases, although local inflammation may not assume that decided character which it does in a more vigorous state of the system, yet the progress is sometimes not less rapid, and the danger is as much to be dreaded. Indeed, no small part of the danger arises from the little suspicion of the possibility of its existence which prevails among medical men, who are too reluctant to employ the effectual means of counteraction. I have seen it prove fatal, in the various forms of phrenitis, pneumonia, gastritis, enteritis, pulmonary consumption, and marasmus. Dissection of those who die of relapse seldom fails to discover traces of inflammation, which most frequently has had its seat in some of the abdominal viscera. In those who continue to linger, after the febrile symptoms have subsided, some lurking organical affection, originating from errors in diet and exposure to cold, may generally be discovered.

Recovery from fever may be greatly accelerated, and the danger of relapse lessened, by carefully swathing the body with flannel, in the manner recommended by Dr White, and so extensively as well as successfully employed by Dr Dewar for the cure of dysentery. Its good effects are the support, and equable temperature it affords the body, and the preservation or restoration of the functions of the skin. This practice has been found beneficial in the continued fever of this country, by a gentleman who has had much experience of its efficacy; and this may be reasonably expected, when it is considered that, besides the advantages of repose, the external warmth of bed-clothes, by restoring the cutaneous discharge, does frequently more good in disease than all other curative means.

It would be travelling beyond the limits of this communication, to enter into any speculation respecting the employment of the same means in some cases of lingering, undefined complaints, which do not readily yield to the usual remedies. I cannot, however, resist this opportunity of hinting at the utility of moderate bleedings, in relieving the symptoms, and in aiding other remedies employed for the cure of that slow febrile state of body, which attends many chronic ailments, and precedes most consumptive diseases.

IV.

Medical Report, By JAMES CLARKE, M. D. late Physician to the Nottingham General Hospital, and the Vaccine Institution; now Resident Physician at Sidmouth.

DEAR SIR,—Obliged by long and serious indisposition to change my residence for the coast of Devonshire, this communication will be the last of that series of "Medical Reports for Nottingham," which I shall have the pleasure of sending you. This paper begins with observations and cases, illustrative of the table of diseases already published in the 26th number of the Journal, followed by an account of the epidemic constitution from April 1810 to March 1811; to which is appended, the Meteorological table for that period; and the table of diseases, as usual, concludes the medical report for Nottingham.

In the month of August, I commenced my meteorological remarks in Sidmouth, from which I promise myself considerable pleasure and satisfaction. Much has been said on the mildness of the climate of our southern coast; but I have not met with any correct minutes on the temperature, from which a just comparison could be drawn. The observations in which I am now engaged, are exactly on the same plan as the meteorological journals I have kept for the last six years at Nottingham, and will with them hold a just comparison. I send you a table for the last year, beginning with April, in continuation of the table already introduced; but two months are unavoidably lost, and the last four months only are for this place, of which I shall now proceed to give you a brief sketch.

"L'avantage extreme ou même la necessité indispensable des descriptions topographiques, a été toujours vivement senti pour servir de base à l'histoire des maladies regnantes dans un lieu determiné." PINEL.

Sidmouth, a small market-town, is situated in a beautiful vale on the coast of Devonshire, and receives its name from a small river which runs by the town into the sea. It is 15 miles from Exeter, 9 from Honiton, and 159 from London. It is bounded by long lofty hills, which form its eastern and western sides; towards the north, it is screened by the Gittisham and Honiton hills, but completely open to the south, where the sea forms a small bay, lying nearly in the middle of that large bay, which is bounded on the east by the Isle of Portland, and on the west by the Start-point. Among the places on our southern coast, recommended for the retreat of the consumptive and debilitated, none possesses advantages equal to Sidmouth. Its very sheltered situation is of great moment; but it justly claims preeminence over every other on the coast, for the clearness of the atmosphere, and *the total absence of fog;* circumstances well worth the serious attention of the invalid. The hedges of Devonshire are high and full; the walks and rides in the vicinity of Sidmouth are therefore most agreeably sheltered. "In the vernal and autumnal parts of the year, the numerous lanes, which intersect and divide this rich valley, are truly delightful; the country then seems one universal garden."* To the little publication from which the above passage is quoted, I must refer you for further information; my object is merely to give you a slight topography of the place.

Before I conclude, however, I shall make some further remarks on the meteorological table. The thermometers are in a northern exposure; the lowest degree of temperature is ascertained by a register thermometer on Six's construction, and can only be compared with observations in which this instrument is employed. The observations on the barometer and day thermometer are made about two o'clock. I think it necessary to point out these circumstances, to prevent erroneous conclusions being made from a comparison with other meteorological tables.—I am,

Dear Sir, your obedient servant,
JAMES CLARKE.

To Dr Duncan, Junior.

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* See the Beauties of Sidmouth, 12mo, sold by Longman, Hurst & Co.

MEDICAL REPORT FOR NOTTINGHAM.

Intermittentes.—Of the fourteen cases marked in the table,* four occurred in soldiers from Walcheren, who finally returned to their regiments apparently cured, but it would be impossible to say by what plan of treatment; they all had symptoms of visceral disease, and did not bear bark until these symptoms were removed. No subsequent report has been received of these patients; so that there is no assurance that they did not experience that relapse so justly dreaded in this disease. The other patients were restored to health by the usual practice.

Diabetes.—Both these cases occurred in children of the same family, which, from the number of sufferers in this disease, might be called a diabetic family.

Cephalæa.—A young female, who had been subject to hemicrania, fell down several stairs and pitched on her head; she was taken up in a state of insensibility, and for some time was not conscious of her situation, but repeatedly complained of her head, and referred always to one spot. No fracture or depression of the cranium could be felt; nor was there any wound of the integuments. The pain was constant, with nearly equal violence. In three or four days the integuments were puffed up at the part on which she fell, and much pain was produced on pressure. The head was shaved, and a blister was applied to the whole surface of it; the bowels were repeatedly emptied by brisk purgatives. By this treatment, in a short time, all symptoms of disease disappeared.

Tympanites Intestinalis.—This was a well-marked instance of this severe disease, in a female of 37. She had been some months ill; the bowels were distended to a considerable degree with air, and very strong smelling frothy feces; the whole arch of the colon could be distinctly traced by the fingers, in fact almost by the eye; the pain arising from this distension was at times almost insupportable, and only relieved by passing a considerable quantity of fetid gas. By the use of antispasmodics and aperients, she was very much relieved, when she ceased to be under the reporter's care.

Phlegmatia dolens—This affection was attributed to imprudent exposure to cold immediately after delivery. The disease was removed by small doses of calomel and squill.

Hydrothorax.—The following case was successfully treated with calomel and squill.

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* See No. 26. of this Journal.

ELIZABETH COLLINGHAM, æt. 40, M. was admitted a patient September 19th, 1809. Complaining of pain and oppression at chest; short cough; dyspnœa; can only lye whilst making considerable pressure on the chest; constant palpitation; pulse sharp but regular; starts in her sleep; passes but little urine; abdomen a little swelled; catamenia regular; bowels regular; has been ill six months.

Sumat pulv. jalap. comp. ʒiss cras mane.
℞ Hydrar. submuriat. gr. i.
Scillæ pulv. gr. iij.
Confect. sennæ q. s. ut f. pil. nocte maneque sumenda.

September 28.—Has ptyalism, in other respects the same.
Omittr. medicament.
Sumat cochl. ij. larg. mixt. aromat. ter in die.

October 12.—Reports much pain, particularly in the loins; bowels obstinately costive.

Sumat mixt. purg. com. ℥ij. 2da quaque hora, donec purgaverit. Rep. pil. hydrar. subm. et scillæ.

October 26th.—Dyspnœa removed, but little cough; free from pain, or palpitation of the heart; passes plenty of urine, but still complains of pain in the loins; bowels regular.
Persistat in usu pil.

November 9th.—Considerably better.
Persistat in usu pil.

November 23d.—Reports very much troubled with the cough.
Persistat in usu pil.
Habeat decoct. lini ad libitum.

December 14th.—Complains only of cough.
Persistat in usu pil. hydrar. submuriat.

January 25th 1810.—*Dismissed cured.*

The salutary effects of the treatment was soon evident in this case, after the mouth became affected; the symptoms gradually receded; and the patient ceased to attend the hospital, having no further occasion for medical assistance.

The two following cases of the same disease were cured by digitalis.

1. JOHN ALLAN, ætat. 34, soldier, was admitted a patient, December 5th, 1809. Complaining of much cough; pain at the chest; difficulty of breathing; pain in the bowels; furred tongue; quick and feeble pulse; legs swell towards night; bowels regular. Has been ill six months; and attributes his complaint to sleeping on the ground at night, during the campaign in Spain.

Sumat ij. pulv. emetic. vespere.
Sumat pulv. febrifug. ter in die.

December 7th.—Vomit operated freely, and has relieved the breathing; cough the same; pain at the chest and bowels undiminished; bowels open.

Persistat in usu pulv.

Applic. emplast. lyttæ sterno.

December 14th.—Pain moderated by the blister; cough and dyspnœa continue; he says he can feel the motion of water in his chest; bowels open, and free from pain; urine in small quantity; cannot rest long, but on his left side; startings in his sleep; much dreaming; weight and tightness across the chest; palpitation; œdema of the feet; pulse very quick. Omit the powders.

℞ Digitalis pulv. gr. ss.
Potassæ supertart. gr. ij. M. f. pulv. nocte maneque sumendus.

Sumat ʒiss. pulv. jalap. comp. cras sumend. mane.

December 21st.—Complains of faintness and lowness, which he attributes to his medicine; dyspnœa moderated; cough increased; other symptoms the same.

Contr. pulv. digital.

December 28th.—No amendment. Persistat in usu pulv. Rept. pulv. purg. cras mane.

January 4th 1810.—Much the same. Persistat in usu med.

January 25th.—Can lie down with more ease, but is much disturbed in the night with violent coughing; still starts in his sleep, but seldom dreams; but little inconvenienced by palpitation; pulse small, feeble, and quick, but regular; urine small in quantity. Omit the powders.

℞ Digitalis pulv. gr. j.
Potassæ supertart. gr. ij. M. f. pulv. nocte maneque sumendus.

Sumat pulv. jalap. comp. ʒiss. in septimana.

Habeat decoct. lini ad libitum.

February 3d.—Habeat in die spirit. juniper. comp. (gin punch) ℔ss.

February 7th.—Continues to get better. Persistat in usu med.

February 19th.—Sumat mist. ferri comp. cochl. iij. larg. ter in die. Persistat in usu pulv.

March 7th.—Omitt. mixt. ferri comp. Persistat in usu pulv. digit. Applic. emplast. lyttæ scrobic. cordis. Sumat mixt. mucilag. tussi urgenti.

March 19th.—Continues improving. Persistat in usu medicamenti.

March 29th.—Dismissed cured.

The disease was in this instance the sequel of a typhus fever, arising from great fatigue, in the retreat of the army under Sir

John Moore. The disease was completely removed by the practice employed; yet his constitution was so much impaired, that he was totally unfit for active service.

2. Hezekiah Quikstam, ætat. 52, waggoner, was admitted a patient, December 5th 1809. Complaining of violent cough, with copious expectoration, the sputa streaked with blood; pain in the left shoulder; furred and tremulous tongue; much dyspnœa; feeble pulse; œdema of the legs towards night; extremities cold; bowels regular. Has been ill one month, and was afflicted with a similar disease last winter.

Sumat ij. pulv. emetic. vespere.

Sumat cochl. iij. larg. mixt. myrrh. comp. ter in die.

December 14*th*.—Vomit operated freely; continues much the same.

Persistat in usu mixt.

December 21*st*.—Dyspnœa undiminished; cannot rest on his back, but lies chiefly on his left side; cough very short and troublesome; is not troubled with unpleasant dreams or startings, but sleeps ill; urine in proper quantity; no œdema of the legs; bowels regular; extremities always cold; pulse regular.

℞ Digitalis pulv. gr. ss.
Potassæ supertart. gr. ij. M. f. pulv. nocte maneque sumendus.

Sumat ʒiss. pulv. jalap. comp. cras mane.

December 28*th*.—Dyspnœa moderated; cough the same.

Persistat in usu medic.

January 11*th*.—In some respects better; bowels regular.

Persistat in usu medic.

February 8*th*.—Much better.

Persistat in usu medic.

February 22*d*.—Convalescent.

Persistat in usu med.

March 22*d*.—Free from complaint.—*Dismissed.*

In this case, the disease may be considered more as the sequel of pneumonia, than idiopathic hydrothorax; the man was restored to perfect health.

The following severe and fatal case of erysipelas occurred in an old soldier, who had been much afflicted with repeated attacks of acute rheumatism.

John Dixon, ætat. 57, M. frame-work knitter, was admitted a patient, May 30th 1809. His face, head, and arms, are covered with a rose-coloured erythema, and appear much swelled; he complains of the weight of his head, and tightness across the clavicles; pulse soft, aad moderately full; bowels regular.

Has been ill two months; knows no cause; has been three times bled, and taken many medicines.

℞ Infus. sennæ.
Aq. puræ āā ℥iiiss.
Sulphat. magnes. ℥j.
Mannæ ℥ss.
Antim. tart. gr. M. f. mixt. sumat cochl. iij. larg. tertia quaque hora donec purgaverit.

June 1*st.*—Stools passed involuntarily; pulse feeble; tongue furred: pus collected round the lower eyelids.

Sumat cochl. iij. larg. decoct. cinchon. compt. 4ta quaque hora.

June 3*d.*—But little alteration. Persistat in usu mixt.

Sumat ℥ij. mixt. purg. cras mane et 2da quaque hora repetend. donec purgaverit. Applic. emplast. lyttæ inter scapulas statim.

June 7*th.*—Blister has acted well; erysipelas diminished; hands much swelled; pulse feeble; but little urine; bowels costive.

Sumat cras mane ol. ricini opt. ℥j.
Habeat vin. rubr. Lusitan. ℥iv. in die.
Persistat in usu mixt. cinchon.

June 8*th.*—Castor oil operated freely; blister healing; erysipelas diminished; hands continue swelled. Persistat in usu medicamenti.

June 10*th.*—Erysipelas much diminished; complains of difficulty in swallowing, and great debility; pulse moderately full; has had no stool since the operation of the oil. Omitt. mixt. cinchon.

℞ Hydrar. submuriat. gr. iij.
Rhœi pulv. gr. x.
Aq. pur. q. s. ut f. pil. ij. cras mane sumenda.

℞ Aq. puræ, Mucilag. acaciæ gum. āā ℥v.
Acid. nitrici ʒij.
Syrup. simp. tinct. cinchon. comp. āā ℥ij. M. sumat poculum subinde.

Persistat in usu vini.

June 12*th.*—Deglutition has become more difficult; debility much increased. Omit the mixture.

To have an enema with ℥vj. of decoction of bark, and a teacupful of yeast every four hours.

To continue the wine.

The symptoms of debility increasing, he gradually expired in the course of the night.

When this man first sought medical assistance, the inflammatory action was very strong, and gave too much reason to fear an attack of phrenitis, which was prevented only by a copious bleeding: the disease, however, still continued its course. Although the erysipelas externally was diminished, the whole track of the alimentary canal became more and more affected, and was not alleviated by any of the remedies that were employed. The body was not allowed to be opened.

Many cases have been inserted, in the different periodical publications, to show the active property of the essential oil of turpentine, in destroying worms. The following may be added to the facts in favour of this remedy.

SARAH HIGH, ætat. 27, S. was admitted a patient, December 5th, 1809. Complaining of violent pain in the bowels; much thirst; headach; fever; furred tongue; much cough; bowels regular; catamenia regular.

Has been ill two months.

Sumat ℥j. ol. ricini opt. statim.

Sumat pulv. febrif. ter in die.

December 7th.—Castor oil operated freely; has but little diminution of pain; less headach; thirst and fever the same; cough more full, with copious expectoration. Persistat in usu pulv. febrif.

℞ Hydrar. submuriat.
Ipecacuan. āā gr. j.
Extract. hyoscyami gr. vj. M. f. pil. ij. omni nocte sumendæ.

December 14th.—No amendment.

Persistat in usu medic.

December 28th.—Cough very troublesome; vision much affected by the hyoscyamus. Omitt. medic.

Sumat ʒss. pulv. acaciæ comp. ter in die.

Applic. emplast. lyttæ sterno.

January 4th 1810.—Pain moderated; cough no better.

Persistat in usu medic.

January 11th.—Cough very severe.

Persistat in usu med.

January 25th.—Symptoms undiminished.

Persistat in usu medic.

February 1st.—Cough still urgent; has epistaxis.

Omitt. medic.

Sumat ℈j. pulv. jalap. comp. cras mane.

℞ Magnes. sulphat. ℥j.
Infus rosæ ℥xvj. M. f. mixtura cujus sumat cochl. iij. larg. ter in die.

February 8th.—Purgative gave relief; epistaxis removed; cough moderated. Persistat in usu medic.

March 8th.—Has continued much the same.

Persistat in usu medicam.

March 28th.—Complains of much pain in the left clavicle.

Persistat in usu medic. Rept. pulv. purgans cras mane.

April 5th.—Has passed an extraordinary quantity of small worms; much dyspnœa; short cough, and gnawing pain at stomach.

Omitt. medic.

℞ Pil. aloes cum myrrh.
Ferri carbonat.
Extract. gentian. āā ʒj.
Ol. rutæ gutt. xij. M. f. pil. 36, quarum sumat iij. bis in die.

April 19th.—Passes worms.

Persistat in usu medic.

May 3d.—Continues to pass worms; much cough.

Omitt. medic. Sumat cochl. j. larg. ol. Terebinth. essent statim et cras mane.

May 7th.—The turpentine blistered the mouth and throat; occasioned much nausea, headach, general distress and fits; the cough increased; much thirst; has passed many dead worms.

Sumat ol. Ricini opt. ℥ss. altera quaque mane.

May 18th.—Continues to pass worms.

Sumat cochl. iij. larg. mixt. salin. camph. ter in die.

May 31st.—Has passed a considerable quantity of worms, and feels completely relieved; free from complaint. Dismissed.

This woman had often been a patient of the hospital for symptoms similar to what she related on her admission this time. Her general form was that observed in those disposed to consumption; and her complaints had so much general resemblance to that disease, that she was marked as one who would, sooner or later, fall a sacrifice to it. On the 5th of April, she first mentions having passed worms; indeed, before this, they were not even suspected; and on the 3d of May she took about half an ounce of the essential oil of turpentine, mixed with honey: the effect was so violent, that her relatives came in great distress, with the remains of the bottle to be examined, suspecting that she was poisoned by some mistake in the medicine. It is proper to remark, that she has been troubled with fits from her childhood. It was not necessary to repeat the remedy; one dose proved sufficiently powerful; nor has she experienced any return of the symptoms until this month (May 1811), when she again complained of gnawing pain at her stomach, short dry cough, &c. The turpentine was again exhibited, with the good effect of discharging worms, and removing her complaints, without inducing any violent effects.

The Epidemic Constitution, from April 1810 *to March* 1811.

April.—Rain fell in the night of the 2d, 3d, 8th, 17th, and 18th. The weather of this month was unusually fine. The prevailing diseases were, pneumonia and catarrh; scarlatina, with and without ulcerations of the tonsils, and cynanche tonsillaris without eruption.

May.—Rain fell in the night of the 1st, 7th, 8th, 20th, and 21st; snow in the night of the 4th, and ice on the ground an inch in thickness. The prevailing diseases of the month were synochus or common fever, particularly among children; ophthalmia, and epidemic scarlatina.

Phthisis, that dreadful and fatal enemy to the inhabitants of manufacturing towns, presented fifteen subjects in this month. A near view of the manners of the lower class of people, will in a great measure remove any surprise that the actual number dying of this disease might excite.

June.—Rain fell on the night of the 9th and 19th; a thunder storm on the 26th. The prevailing disease of this month was *pneumonia; scarlatina* still showed itself. One case of *small-pox* was brought into the town, but prevented from spreading, care being taken to vaccinate all those persons exposed to its immediate influence.

July.—Rain in the night of the 1st, 10th, 12th, and 13th; thunder on the 1st and 13th. Two more cases of small-pox were brought into the town, but the contagion did not spread.

August.—The wind chiefly southerly this month; was unusually healthy.

September.—Rain in the night of the 21st, and 23d.

Scarlatina was very prevalent, passing through whole families; it was attended with inflammation, and often ulceration of the tonsils; but in many instances much inflammation was found in the tonsils, unattended by rash. The scarlatina towards the end of this month often terminated in inflammation of the submaxillary and parotid glands, which generally proceeded to suppuration. Œdema of the extremities, and often of the face, succeeded the fever, if purgatives had not been employed: it was only to be removed by a course of purgatives, which in no instance increased the debility.

Synochus and *synochus infantum* were also prevalent diseases of this month. One more case of small-pox was brought into the town; the security afforded by vaccination was undiminished; the disease did not extend to another individual.

October.—Rain in the nights of the 16th, 17th, 18th, 19th, 20th, 21st, and 27th; snow on the 29th; the wind chiefly easterly. *Scarlatina* continued through this month with an increased violence, and proved often fatal; it was in many instances attended with cough. *Typhus* became very prevalent and very fatal; in many cases the termination was unexpectedly sudden. Towards the end of the month the disease began with vomiting and purging; the diarrhœa was not moderated by opiates; small doses of calomel and ipecacuanha were found the most effectual treatment. *Synochus* was unusually prevalent and severe.

November.—Rain fell in the night of the 1st, 5th, 9th, 10th, 14th, 15th, 16th, 17th, 18th, 20th, and 29th; wind variable. *Typhus*, for a few days in the beginning of this month, was attended with pain in the chest and sides; but the prevalence of this disease, as well as of the *scarlet-fever*, was much diminished.

On examining the body of a woman who died of hydrothorax, a calculus was found in the gall-bladder, the existence of which was not suspected; it is brown, rough, light, and friable, but not easily fractured: its long diameter measured one inch, short diameter ¾ of an inch, and it weighed 64 grains. Dr Lettsom mentions the case of a biliary calculus, discharged by the rectum after some years of painful suffering, which measured in length 2¼ inches, and in circumference 8½ inches, and weighing one ounce, two drams, and twenty-three grains. "It had," he says, "the natural appearance of a brown flint stone, though of less ponderosity in proportion to its magnitude." *

December.—Rain in the night of the 3d, 4th, 5th, 12th, 22d, 24th, 25th, 26th, and 27th; snow in the night of the 9th, and 30th; boisterous westerly winds. This month was generally healthy; a few sporadic cases of scarlatina and cynanche tonsillaris were met with.

January, 1811.—Rain fell in the night of the 10th, 11th, and 31st; snow in the night of the 3d, 4th, 15th, 27th, and 30th; wind chiefly westerly, and often boisterous.

Pneumonia and *Catarrh* were the prevalent diseases of this month; *scarlatina*, *rubeola*, and *typhus*, were occasionally met with. Four cases of variola were brought into the town, but the disease did not spread to any other individuals.

February.—Rain fell in the night of the 6th, 7th, and 23d; snow in the night of the 13th, and 15th; the wind mostly westerly. *Catarrhus*, *synochus*, and *typhus*, particularly among children, are the most prevailing diseases. *Pertussis* and *scarlatina* appeared sporadically. The *typhus* is attended with a troublesome diarrhœa. The disease has its origin in the extreme distress of the poor, who, not being able to purchase wholesome food, are obliged to subsist on what they can procure to satisfy the call of hunger. Many hundreds of frame-work knitters are out of employ, and dependent, with their families, on parochial relief. So much distress was never before witnessed in the stocking manufacture. A riotous disposition is manifesting itself in the town and county, and, if relief be not afforded, the consequences must be dreadful. The last severe contagious typhus in Nottingham was in the season of great scarcity (1798). There is every reason to fear the same effect may be produced from the present distress of the labouring poor. It is generally admitted, that typhus is never more virulent and contagious, than when it appears among the impoverished manufacturers.

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* Memoirs of the Medical Society of London, Vol. I. p. 378.

March.—Rain fell in the night of the 5th, 6th, 7th, and 21st; the wind mostly westerly.

The *typhus* fever extended its ravages during this month; the *catarrhal-fever* assumed the typhoid character.

Account of Baptisms and Burials within the town of Nottingham, from January 1st 1810, to January 1st, 1811; extracted from the parish registers.

Baptisms,	Males 649	Females 558	Total 1207
Burials,	Males 467	Females 496	Total 963.
Increased in Baptisms 64.		Increased in Burials 108.	

Meteorological Table for Nottingham, from April 1810 *to March* 1811.

Mnths.	Thermometer.				Barometer.				Weathr.			Winds.								Rain
1810.	Maximum.	Minimum.	Medium.	Greatest range in 24 hours.	Maximum.	Minimum.	Medium.	Greatest range in 24 hours.	Fine.	Fair.	Wet.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	in inches and decimals.
April,	70°	32°	47°	9°	30.18	29.27	29.76	.33	14	10	6	4	10		7	8	10	1	1	1.00
May,	68	29	47	15	30.33	29.05	29.86	1.05	15	8	8	6	20	1	3	3	4	3	3	2.60
June,	78	38	57	10	30.35	29.72	30.08	.35	20	8	2	1	15	2	5	2	13	2	2	1.18
July,...	77	42	57	15	29.95	29.40	29.75	.31	8	4	19	5	4		4	7	5	1	4	3.85
Aug.	80	40	57	10	30.43	29.39	29.79	.52	21		10	1			6	7	11	2	4	2.61
Sept....	82	39	56	11	30.38	29.71	30,10	.31	25	3	2	4	13	1	5	3	7	1	4	.62
Oct. ...	68	24	45	8	30.30	29.03	29.86	.54	16	7	8	3	12	4	7	2	6	3	3	2.72
Nov....	53	26	38	10	30.12	28.86	29.44	.55	12	13	5	5	6	4	6	1	7	3	4	3.02
Dec. ..	50	19	36	10	30.50	28.85	29.62	.71	11	10	10	2	3	1	1	2	7	11	10	2.07
1811.																				
Jan. ...	51	13	30	12	30.52	29.06	29.81	.69	8	15	8	1	3	9	1	3	8	12	3	.97
Feb. ...	52	22	37	11	30.08	28.85	29.40	.68	8	8	12			2	6	8	8	3	5	1.21
March,	57	26	41	10	30.51	29.10	30.00	.89	19	6	6	1	6	3	5	3	6	9	4	1.47

Annual Results.

Thermometer.			*Wind.*
Highest observation,	82°	Sept. 2.	E.
Lowest observation,	13°	Jan. 29.	W.
Greatest range in 24 hours,	15°	May 3, 4.	N. E.
Annual mean,	46°		

Barometer.		*Wind.*
Highest observation, January 25,	30.52 f.	W.
Lowest observation, February 22,	28.85	S.
Greatest range in 24 hours, May 20,	1.05	
Annual mean,	29.78	

Weather.	*Days.*
Fine,	177
Fair,	92
Wet,	96
	365

Wind.	*Times.*
N.	33
N. E.	92
E.	27
S. E.	56
S.	47
S. W.	92
W.	51
N. W.	47
	445

Rain.	*Inches.*
Greatest quantity in July,	3.85
Smallest quantity in September,	.62
Total quantity for the year,	23.32

Meteorological Table, from April to December 1811.

Months.	Thermometer.				Barometer.				Weathr.			Winds.								Rain
1811. *Nottingham.*	Maximum.	Minimum.	Medium.	Greatest range in 24 hours.	Maximum.	Minimum.	Medium.	Greatest range in 24 hours.	Fine.	Fair.	Wet.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	in inches and decimals.
April, ...	70°	22°	46°	11°	30.10	29.06	29.66	.46	14	6	10	2	3	8	9	6	6	3	7	1.04
May......	74	34	53	10	30.01	29.39	29.69	.51	4	11	16	1	6	7	9	7	9	1	5	3.73
June......	76	37	55	9	30.18	29.44	29.83	.31	11	6	13	3	6	1	4	3	4	7	4	1.11
July																				
Sidmouth.																				
August. .									11	7	13									
Sept......	73	36	55	12	30.38	29.22	30.16	.51	19	2	9	4	2	3	16	1	5	3	2	
October	67	32	55	10	30.25	28.84	29.75	.75	10	4	17	2		2	3	2	13	2	1	
Nov.......	60	26	45	10	30.51	29.40	30.06	.50	19	3	8	11	2				5	3	10	
Dec.......	54	22	37	13	30.40	29.16	29.84	.60	16	2	13	12	3				6	4	8	

The table of diseases, which closes this report, may be divided into three heads of practice—

	Patients.
The General Hospital received	1351
The Vaccine Institution -	406
The Reporter's private practice	693
Total	2450

TABLE of DISEA

Diseases.	5	10	15	20	25	
Intermittentes - - -					5	
Synocha - - - -						
Typhus - - - -	9	4	2	7	5	
Synochus - - -	29	19	10	15	20	
——— infantum - -	43	17	5			
Phlogosis - - -	2	1		1	2	
Apostema - - -		3	4	3	1	
Ophthalmia - - -	11	2	3	3	2	
Cynanche tonsillaris - -	1	2	3	3	5	
Pneumonia - - -	17	3	1	6	7	
Bronchitis asthenica -					7	
——— chronica - -						
Catarrhus - -	9	5		5	9	
Phthisis - - -	1	3	5	9	9	1
Peritonitis - - -					1	
Gastritis - - - -						
Hepatitis - - - -					1	
Nephritis - - - -						
Cystitis - - - -			1			
Rheumatismus - - -		1	4	1	3	
Arthrodynia - - -		1	1	1	4	
Podagra - - - -						
Arthropuosis - - -		6		1	1	
Pleurodynia - - -				1	1	
Enterodynia - - -				1	1	
Hepatalgia - - -					1	1
Nephralgia - - -						1
Epistaxis - - - -						
Hæmoptysis - - -					5	2
Hæmorrhois - - -						2
Menorrhagia - - -				2	1	4
Dysenteria - - -		1		1	2	
Diarrhœa - - -	2	1	1		1	1
Apoplexia hydrocephalica -	3					
Paralysis - - - -			1	1		2
Gastrodynia - - -					3	2
Hypochondriasis - -					1	
Dyspepsia - - -			2	7	17	22
Convulsio - - -	3				1	1
Chorea - - - -			2			
Epilepsia - - - -				1	1	
Asthma - - - -				1	1	
Pertussis - - - -	14	3				
Cholera - - - -		1	1	1	2	1
Diabetes - - - -						
Hysteria - - - -	1		2	6	4	7
Cephalalgia - - -				1	7	5
Cephalæa - - -						
Hemicrania - - -					1	
Mania - - - -			2			

Diseases.	5	10	15	20	25	30
Brought over - -	145	73	50	78	132	13
Atrophia - - - -					2	
Asthenia - - - -	1	2	2	2	5	
Anasarca - - - -	2	2			4	
Hydrothorax - - -						
Ascites - - - -	1		1	1	2	
Hydrocele - - -						
Rachitis - - - -	2	1	1			
Scrofula - - - -	5	13	11	4	5	
Syphilis - - - -	2			3	17	1
Icterus - - - -			1			
Lichen (Spring eruption) -	4			1	2	
Prurigo (universal itching) -	2	1		2	1	
Lepra (Grecian leprosy) -					1	
Psoriasis (dry tetter) -	2				1	
Rubeola (measles) - -	2	1				
Scarlatina (scarlet fever) -	14	25	11	5	7	
Urticaria (nettle rash) -		2	1			
Roseola (rose rash) - -		1				
Purpura (purple rash) -		1	1			
Erythema (red rash) - -	1	1		1		
Erysipelas (St Anthony's fire)						
Impetigo (running tetter) -	11	2	3	1	2	
Variola (small-pox) - -	7	1				
Scabies (itch) - - -	3	2	1	1	2	
Porrigo (scald-head) -	13	6	5			
Herpes (ring-worm) - -	2	1		1		
Varicella (chicken pox) -	2	1				
Vaccinia (cow-pox) - -	388	14	3			
Phyma (carbuncles) - -			1			
Caligo - - - -	1	4	3	2		
Amaurosis - - -					1	
Enuresis - - - -		1	2			
Dysuria - - - -		1			1	
Gonorrhœa - - -					4	
Amenorrhœa - - -			4	19	9	
Calculus - - - -						
Strictura - - - -						
Hernia - - - -	1				1	
Bronchocele - - -			1	5	4	
Tumour - - - -	1	3	2	4	5	
Scirrhus - - - -					[illegible]	
Cancer - - - -						
Hydrarthus - - -				1	2	
Contusio - - - -	8	2	8	6	[illegible]	
Fractura - - - -	7		2	4	2	
Luxatio - - - -	1	1	1			
Vulnus - - - -	11	14	14	8	[illegible]	

V.

Case of Scirrhous Stomach, and Stricture in the Colon, with appearances on Dissection. By JOHN HOLMES, M. D. Colerain.

ROBERT M'KIRGAN, aged 39, by occupation a fisherman, was seized, during the summer of 1809, with almost all the symptoms of severe dyspepsia; appetite considerably impaired; nausea, acid eructations, flatulènce, and frequent vomitings of a thin, watery, and sometimes hot and acid fluid. He also complained of a peculiar uneasiness in the region of the stomach, which seemed to produce more distress than I have witnessed in ordinary cases of dyspepsia. He had used several remedies when I was first consulted concerning him, from which he experienced very little relief. A mixture of magnesia and rhubarb, which, among other medicines, was recommended to him, produced a temporary alleviation of some of the most troublesome symptoms; but it did not seem probable that the disease could be speedily or effectually removed, by any means which were then had recourse to.

Being for some months absent from the country, I had not an opportunity of seeing him again, till the month of February 1810. All his former symptoms were now greatly aggravated; he vomited almost all aliment, and complained of a constant and distressing pain in the epigastric region, from which, he said, he found no remission. He was considerably emaciated, though his countenance had still a healthy aspect; his bowels were generally free from any extreme of looseness or constipation. During the month of March, he made trial of almost all those medicines which are usually administered in cases of severe dyspepsia, but without any apparent advantage; he also frequently used both warm and cold baths, with no better success. A large blister was applied to the epigastric region, by which the pain was alleviated for a time, but soon returned again with equal severity. A repetition of the blister was strongly recommended, but, from some objections made to it by some of his friends, it was not again applied. The oleum ricini was sometimes given, in very moderate doses: this was the only laxative which he could take, to produce any effect, all others being rejected by vomiting.

In the beginning of the month of April, all medicines were desisted from, as their administration produced uneasiness, and afforded not the slightest relief. The disease was now rapidly advancing; his emaciation became alarming, and his debility so great, that he could not arise from his bed: his bowels, which were formerly in a moderate state of laxity, now became so much so, as to resemble slight diarrhœa; and sometimes matter of a bloody appearance was discharged by stool. The pain in the epigastric region became more excruciating, and continued with equal permanency. He also complained of severe pain in other parts of the abdomen. He sometimes felt as if the pain was extended over the whole abdomen, but more frequently along the course of the cartilages of the false-ribs, from whence, he said, he felt them often shooting into his shoulders and arms. For some time previous to his death, however, he so frequently complained of pains in almost every part of the abdomen, and in both his sides, from thence shooting in various directions, that it would have been very difficult for a medical observer to conceive in what particular internal part the disease chiefly prevailed, exclusive of the epigastric region, in which the pain still continued to afflict him with predominant severity. On laying my hand over the epigastric region, where the pain was most severe during the latter months of his complaint, I have more than once perceived a gurgling noise, like that of a fluid forcibly driven through a narrow aperture, in that part of the abdomen beneath my hand. This symptom was somewhat remarkable, and tended strongly to confirm the suspicions which I had previously entertained concerning the precise cause of his disorder.

Before his death he made a request (very surprising indeed, when we consider the prejudices and superstitious notions which generally prevail among the lower classes of the community, and which displayed something of magnanimity) that, after his dissolution, his body should be opened, in order to ascertain the causes of his complaints.

The appearances which presented themselves on dissection were the following: The skin, abdominal muscles, and peritonæum, being cut through, the viscera of the abdomen presented themselves in their usual situation. On examining the stomach, it was discovered, that the coats of the greatest part of the lower half of that viscus were prodigiously thickened, and entirely in a scirrhous condition.

Nearly that half of the circumference of the pylorus, which is a continuation of the lesser curvature of the stomach, was completely scirrhous; and although the remaining part of the circumference of the pylorus seemed in its natural condition, yet the calibre of the passage from the stomach into the duodenum appeared to be much diminished. The cardia, and upper part of the stomach were in a sound state. The intestines being further examined, a most remarkable stricture was found in the great arch of the colon. The situation of this stricture was so precisely in the centre of the great arch of the colon where it passes through the epigastric region, that it must have been in the immediate vicinity of the pylorus; hence it is obvious, that whether the pain which the deceased experienced so severely during his lifetime in the epigastric region, originated from the stricture in the colon, or from the morbid condition of the lower part of the stomach and pylorus, it must by him have been constantly referred to the same seat. A considerable quantity of feculent matter was found to have accumulated to the right of the stricture in the colon, while the intestine on the left of the stricture was nearly empty. The coats of the colon at this part were so morbidly thickened and contracted, that the little finger could scarcely be pushed with freedom through the aperture which remained for the passage of the feces.

The mesentery also was in a very morbid state; small circular spots of a whitish appearance were interspersed over the greatest part of it: when these spots were compressed between the fingers, they were found to be small hard bodies, seemingly of a cartilaginous structure. A considerable part of the peritoneum was in a very similar condition; small white or greyish spots were thickly interspersed in it, but they were not so hard or cartilaginous as those of the mesentery; they seemed to partake of the same morbid structure, though in a less advanced state. The liver, kidneys, and other viscera of the abdomen were in a sound state. The variety of symptoms which occurred during the life of the patient, are sufficiently accounted for by the morbid appearances which presented themselves on dissection. It might, however, be proposed as a query, How a stricture in the great arch of the colon, or other part of the intestines, exclusive of the pylorus, could be ascertained to exist, with any degree of certainty, by its own proper diagnostic symptoms? Practitioners, in general, can judge with tolerable accuracy concerning the existence of scirrhous pylorus in its more advanced state; but I am afraid that strictures in other parts of the intestines, not unfrequently elude the penetration of the most diligent and accurate observers. In confirmation of this, I can state with certainty, that a stricture in the sigmoid flexion of the colon has sometimes been mistaken, by experienced practitioners, for a scirrhous or cancerous affection of the womb. It may be observed, in conclusion, that we are equally deficient in our knowledge of any medicines capable of removing strictures in the intestines in their more advanced state, as we are of those diagnostic symptoms, by which they can with certainty be known to exist.

Colerain, December 14th, 1811.

VI.

Cases of Emphysema, cured by the Use of Cold Applications.

By P. Johnson, Surgeon, Royal Navy.

Having some years ago read Mr Geoghegan of Dublin's method of reducing inguinal herniæ, in which he uses application of cold in different forms, to lessen the volume of air contained in the intestine, and which was the chief cause of the difficulty of returning the intestine into the cavity of the abdomen, I was induced to try the effects of cold both generally and partially, in two cases of emphysema that have happened without any evident cause, in ships I have served in during the last two years. Its success, in these two cases, may render them worthy of a place in your Journal, and may lead to farther knowledge of a disease, whose pathology is so obscure.

The first case I can state from recollection only, the journal of it being sent to the Transport-office, and I have, in leaving the vessel in which it occurred, lost the day-book. The patient was a prisoner taken at Flushing, a soldier in the French army, a Prussian by birth, aged about twenty-six, five feet five inches high; a good small-swordsman, but positive that he never was wounded in that exercise; often subject to the intermittent fever of Walcheren, where he had been four years, and rather debilitated. In June 1810, when in the Elbe, his face first swelled; in two days afterwards his scrotum, and in five days his neck and breast were much swelled also; some cough. About a week from his first attack his feet swelled, then every part of the cellular membrane throughout his body appeared distended with air; much dejection and fear of suffocation, though he could swallow fluids with ease; his pulse was full and slow. Opium gave him relief; the tincture of digitalis to 50 drops, given three times a-day, lessened his pulse and cough. He tried the cold bath once a-day, sometimes in the morning, sometimes in the evening, with great relief; did not cough for one or two hours after coming out. A mixture of vinegar and salt-water, in the proportion of one part of the former to three of the latter, was applied to his scrotum by a cloth kept wet with it, which, although it did not lessen the size, yet prevented its increase. Though he was getting better, the accommodations being bad, and ship small, I was obliged to advise to send him on shore to the hospital the third week of his complaint.

The next case occurred in July last, off Norway, in a stout healthy man, aged about thirty-four, who had been a sailor upwards of ten years. He complained of both calfs of his legs being much swollen with some fatigue after walking; his pulse regular. I gave him 30 grains of jalap, with directions to rub his legs with warm flannel; this was on the 13th.

14th.—Swelling increased, with dyspnœa; neck swelled also; pulse full and soft. Tinct. digitalis gtt. 40 nocte.

15th.—Tinct. cont. mane et nocte.

16th.—Dyspnœa less; pulse soft and slow; good rest; stools regular. Crem. tart. ʒiij. aquæ ℔iij. pro potu ordinario; Tinct. laven. comp. ʒj. olei menthæ pip. gtt. iv. M. nocte.

17th.—Emphysema general; scrotum greatly enlarged. Tinct. dig. gtt. 30 mane, et tincturæ rhei ℥j. nocte.

18th.—Has used the cold bath; dyspnœa, or cough, better after its use; several loose stools. Ether. sulph. gtt. 40, tinct. lav. ʒj. M. nocte.

19th.—Is obliged to sleep in nearly an erect position; dejection and fear of suffocation great; pulse full but soft; cold water used from abdomen upwards in the morning, and from abdomen downwards at night. Cont. ether. 2 p. m. hora: dig. et opii tinct. āā. gtt. 30 M. nocte.

20th.—Cont. med. ut heri, et aqua frigida marina; "feels a load," he says, "on his chest;" his neck is much swollen; every part of his body distended with air. Cont. tinct. dig. ter in die. This day, in the morning, stood under the pump from salt water; at night better.

21st.—Used the cold water at 8 p. m.; better. Cont. dig. The weather being warm, and no thermometer on board, I cannot say what precise degree the water was; he felt it very cold; he neither belched wind nor passed any by the anus.

22d.—The size of the scrotum less; his cough less; neck less swelled in morning, but more at night. Cont. tinct. dig. Five hours sleep last night.

23d.—Cont. digitalis tinct. bis in die, cum t. opii gtt. 30 nocte.

24th.—Better; pulse natural; has omitted the cold water, and has used all his drink cold. Cont. dig. ut heri.

25th.—Scrotum much distended; keeps it wet with cold water; swallowing less difficult; complains of dysuria. Ether. nitrosi ʒj. bis in die.

26th.—Dysuria gone; ether purged him; all medicines were omitted; got well daily to the 8th of August, when he was discharged to duty. I shall only remark on this man's case, that he was better after the cold bath. Two or three times he complained of the general affusion as too cold, therefore used it only on half his body. His nights were always restless; his bowels regular; his pulse more full than natural, though not hard. Although the last of these cases was the worst, neither could remain in bed above two or three hours at a time; warmth increased the volume of air. The digitalis was used to increase the action of the absorbents, as in dropsy. Having never seen a case of the kind treated by any other person, I was at a considerable loss how to act. Books gave me little information.

Sheerness, February 10, 1812.

VII.

Miscellaneous Communications. By W. Simmons, Surgeon, Manchester.

1. *On an Anomaly in Vaccination.*

In medicine, as in other experimental sciences, the anomalies which occur in practice may be considered useful, in as much as they tend to establish the general truth contended for, by particularly distinguishing the exceptions to it. This position will especially apply to vaccination, the occurrence of the small-pox after which has recently given much alarm, and produced serious apprehension with many, of the permanent security sought from the vaccine inoculation. It is my wish to contribute my mite towards the removal of this unfavourable impression; and this I hope to do, in some degree, by a plain recital of the following facts.

On the 8th of October 1811, I vaccinated two infants for the second time, after an interval of several weeks from their former vaccination. This repetition was judged expedient, from the disease having passed through its several stages with unusual rapidity, being at the height, in one instance, on the eighth day from the vaccination, and in the other on the ninth—though in each the appearances on the arm were characteristic, and otherwise satisfactory. At this second vaccination, I made a puncture in each arm of my little patients. Next day each puncture exhibited signs of inflammation, which had increased on the day following; but, on the third, the inflammation, instead of advancing, was evidently subsiding, and, in a few days more, had disappeared. I conclude, therefore, that the former vaccination was complete;

and that the rapidity with which the disease had passed through its several stages, constituted only a variety.

With the point of the lancet charged to vaccinate one of these young subjects the second time, I inadvertently touched my left cheek, but not so deeply as to draw blood, and for near a week I thought no more about it. What I considered to be a pimple, had been a little troublesome for several days; but, expecting it to go away again, I did not particularly notice it; nor did I discover its real nature until the morning of the seventh day from the accident, when its vaccine character was too evident to be mistaken. For two or three days preceding, I was restless and thirsty, my head had ached, and my appetite for animal food was gone; but the cause of this slight indisposition had not once occurred to me.

From this time the vesicle enlarged, and the inflammation spread in the usual manner. On the ninth and tenth days the tumefaction was considerable; the glands, at the angle, and under the lower jaw, on the same side, were swelled and painful; and, on the tenth day, the throbbing pain in the cheek was so violent as to induce me to conclude that an abscess would form. However, on the eleventh, all the symptoms began to abate, and thenceforward gradually subsided; and the crust from the vesicle exfoliated on the 23d of the same month. Wishing the disease to pursue its own course, the only medicine taken was a little sulphate of magnesia to moderate the severity of the pain in the head; but no outward means whatever were employed.

On the 15th of October, or eighth day from receiving the infection, three children were vaccinated from my cheek, at the infirmary, and they all took the cow-pox. On the 23d of October, from a fine vesicle on the arm of one of these children, I vaccinated a private patient, an infant, and she passed through the disease in a satisfactory manner: And here, the experiments ended. On the whole, however, I may be permitted to offer a few remarks.

It is just within my recollection, that, when a child, I had the small-pox in the natural way, and, during the course of my professional life, until the discovery of vaccination, I had been frequently called to attend on persons labouring under the inoculated and natural small-pox. It is highly probable, therefore, that my constitution was shielded against the small-pox contagion. Proof though as it might be against the variolous contagion, it still remained susceptible of the vaccine infection; and from this fact an inference might be drawn unfavourable to the *identity* of the two diseases. Indeed, the phenomena of the small-pox and of the cow-pox are not precisely the same, though, generally speaking, the system is left in the same state by both; and hence an *identity* of effect on the constitution may be justly inferred. To ascertain this point, so many experiments have been instituted, that it cannot be any longer doubtful. It is equally certain too, that the small-pox may occur twice in the same subject; and we have seen, that a person who has had the small-pox will receive the cow-pox, and, by possibility, the former disease will supervene to the latter. But such exceptions to the general course of experience ought not to influence the conduct of the practitioner, who, on the contrary, will rest his claim to success on the aggregate of facts, and not on the exceptions to it.

2. *On the utility of Diuretics in Ulcers situated on the lower Extremities.*

Among the means recommended in the treatment of ulcers situated on the lower extremities, to which weavers, and some other labouring classes are more particularly incident, *diuretics* have obtained a less share of attention than they seem to deserve. In ulcers of this description, which are mostly of long-standing, œdema of the limb is a usual concomitant; and, in this symptom, depending on the loss of tone, bandages give an obvious and efficient support.

In this plan of treatment by bandages, *diuretics* will be found a powerful auxiliary, since they reduce the œdema, check the further deposition of lymph, and facilitate the reacquisition of tone in the parts. If the ulcer should possess a specific character, its appropriate remedy will also form a part of the course.

In ulcers on the legs, attended with callosity, which constitute a great majority of such cases, the compound squill pill, in the dose of three pills, two or three times a-day, is often sufficiently diuretic; in those cases where it is not so, the subcarbonate of potash, and spirit of nitrous æther, taken in a draught of the compound infusion of gentian, will seldom fail to increase the secretion by the kidneys to the extent wished for; and at night, if a still more powerful diuretic be required, the union of mercury with squill and digitalis may be added to the business of the day. But out of this uncertain class of remedies, the judicious surgeon will choose for himself. In the cases described, I have found the production of an increased flow of urine a material improvement of their treatment, and as such I recommend it to the profession.

3. *On the property of Arsenic in Cancer.*

The property of arsenic, taken internally, of allaying the pain of cancer in the ulcerated stage, is already before the public. In the common cancer, and in that variety of cancer to which chimney-sweepers are incident, its effects are nearly similar. In both it improves the quality of the discharge from the ulcer, and alleviates the pain, without inducing stupor or disposition to sleep. Hence it may be considered an *antalgic* rather than an *anodyne* in such cases.

In the year 1810, an elderly gentlewoman took the "liquor arsenicalis" in a case of cancer of the right breast, twice a day for three months. Her sufferings were extreme before she entered on this course; soon, however, the arsenic gave her ease, and, with a few exceptions, kept her easy during the remainder of her life. These exceptions for the most part took place when the tubercles were about to exfoliate; after the exfoliation, the pain again subsided; the hollow granulated; the granulations were florid, and healthy-looking; and the secretion from them was purulent. By these means, she was kept very tolerably easy, compared with what is usually suffered, as she gradually sunk; nor did she experience any of those unpleasant symptoms, which are said to arise from the continued exhibition of arsenic.

As the pain in the common, and in the chimney-sweepers, or soot-cancer, is alike alleviated by the internal exhibition of arsenic, may we thence infer the *identity* of the poison in these two diseases? If a different cause can produce the same morbid change of structure in a part, there is no difficulty in conceiving a similarity of function in the subsequent action of the part, however dissimilar the original cause might have been.

4. *On the Property of Iron in Cancer.*

There is a material difference between curing a disease, and alleviating some of its more distressing symptoms. But this distinction has not always been sufficiently attended to in practice; and hence a medicine, highly extolled at one time, has afterwards sunk into neglect, though by no means destitute of valuable properties. The history of the remedies prescribed in cancer, will supply an exemplification of the validity of this opinion; a disease for which, I believe, no cure is yet known except its excision, in the early stage, while it is yet local, and the system is uncontaminated by absorption.

Among the remedies entitled to attention, in combating some of the symptoms of cancer, are the preparations of iron; and to ascertain the extent of their pretensions, I selected two cases of genuine cancer of the mammæ, advanced into the state of ulceration. In each, the treatment was conducted agreeably to the suggestions of Mr Carmichael; the ulcerated surface was sprinkled with the carbonate of iron; the edges were washed with the solution of sulphate of iron; and the carbonate of iron was administered internally.

In the first case, the burning sensation on the surface was much alleviated; the discharge became purulent; the indurated lips were much lessened; and the enlarged axillary glands were considerably reduced in bulk. Here the advantage rested, and was of short duration; a slough soon after formed on the surface of the ulcer, the patient's strength sunk rapidly, and, at her own request, she quitted the Infirmary.

In the second case, treated precisely as the first, the only benefit derived from the use of iron, was a mitigation of the sense of burning spread over the ulcerated surface.

In the intervals of my visits, both these cases were treated, at my request, with particular attention to accuracy, by Mr Joseph Duncan, the late very respectable house-surgeon, whose assiduity and humanity to the patients merit every commendation it is in my power to bestow.

In estimating the value of iron as a remedy in cancer, from the above two cases, it would appear, that its assistance might be sought to alleviate the tormenting sense of heat diffused over the ulcer, and as a temporary check to the rapid advancement of the disease. But, according to my experience, the powers of iron, in both these respects, are much inferior to those of arsenic.

5. *A Case of Occult Cancer.*

On the 25th April 1811, I extirpated a cancer from the left breast of a female; it was of six months standing, painful, craggy on the surface, and incompressibly hard. The incision was made nearly *vertical*; a method of operating that I now prefer, as it affords a ready exit to the discharge, and gives more room to follow the disease into the axilla, where the diseased state of the glands, in that part, requires extirpation. When the incision is *horizontal*, the discharge will, of necessity, collect in the lower part, and this lodgment will not only hinder union by the first intention, but much retard the healing of the wound.

Nothing unusual occurred in the operation. But, on examining the tumour after extirpation, it appeared to consist of a *homogeneous* substance, of a texture so hard as to resound when scraped with the scalpel; but there were no *white bands*, or *intersections* of any kind.

6. *On the Liquor Ferri Alkalini in Scrofula.*

The multiplicity of remedies recommended in scrofula, rather perplex than assist the choice. It is, I fear, the lot of scrofula, as well as of cancer, yet to remain unsubdued, and to stand as a reproach to the healing art. Nevertheless, though the power to extinguish them be denied us, we have reason to be thankful that we can do so much in alleviation of the sufferings of our fellow creatures. In pursuance of this object, I shall propose to the consideration of the Faculty, the employment of the "Liquor Ferri Alkalini" of the London Dispensatory of the year 1809. This preparation I have employed pretty extensively in scrofula for some time past; and, from my present experience, I am led to consider it as a valuable acquisition. In swellings of the conglobate glands, and in scrofulous ulceration, in which two forms of the disease it has been mostly exhibited, the patients have derived more benefit from it, than from any other preparation of iron, or from the cinchona.

In administering the liquor ferr. alk. I have prescribed it in the common dose, *largely diluted with water*, two or three times a-day, according to its sensible effects, increasing or lessening the dose, so as to procure not more than two evacuations from the bowels in the course of the twenty-four hours. Besides its operation on the bowels, the kidneys are stimulated to an increased secretion, and a considerable flow of urine is often the consequence. To these properties of a diuretic, and an aperient, belong those of a tonic, since the appetite and general strength are materially improved by it.

A medicine, possessed of such active qualities as these, is evidently well adapted to scrofula; and also to fulfil the curative intention in some other diseases of debility, in which relief is to be expected from the union of an evacuant and a tonic.

Manchester, Jan. 21, 1812.

VIII.

Observations on those Accidents commonly ascribed to the Wind of a Ball. By JOHN SPENCE, M. D. Surgeon, Royal Navy.

I HAVE long had doubts respecting the alleged cause of those accidents that happen in battle, particularly on board ship, from what is generally termed the wind of a shot. I was in hopes, on seeing Mr Ellis's observations in your Journal for January, to have had the cause of those accidents more clearly elucidated; but although Mr Ellis deserves every praise for his ingenious theory and laudable investigation of a circumstance that requires more attention than has hitherto been given to it, and although the similarity of the effects with those of lightning, are in many points striking, yet his reasoning does not appear to me convincing.

In battle it is not to be supposed that those engaged can pay attention to every little passing circumstance, therefore it must be from attention to the accident, and other local circumstances, that we are to learn the cause.

The sudden concussion or agitation of the contiguous atmosphere, by the rapid motion of such a small body as a cannon-ball, does not appear to be sufficient to account for the extent of injury often produced, and alleged to be from that cause only. In all the cases that have fallen under my treatment and observation, I think I have been able to account for the cause more satisfactorily to myself; and the numerous occurrences in every battle, of cannon-balls passing close to the body, without doing injury, should, at least, induce us to some investigation, before leaving it to a supposed cause, which may lead to a careless treatment.

There are many substances, comparatively light of themselves, on board ship, such as canvas, rope-yarns, part of the bedding, &c. which, when carried along with the velocity of a ball, or even driven but a short way with that force, are apt to do considerable injury by hitting the body, and, by occupying a large or small bulk, may, or may not, produce external mark of injury. I know an officer who had considerable pain in the loins for some time after a battle, supposed to be from the wind of a shot, as he was not conscious of any thing having hit him, and there was no external mark; but the flakes of a bed from the hammock-knittings, being pretty thick on his coat, showed to me that the pain was produced by something more dense than wind; and had it been the stomach that was hit, instead of the back, I think it very probable that officer would have been killed. It is well known that a smart blow on the stomach will produce faintness, and sometimes deprive a person of life, without producing any external mark, which often happens with boys or men fighting; and it has happened, that a person has been killed by the sudden push of a foil, which bursted the peritonæum, without causing any external mark. Surely neither of these will be imputed to the effects of electric matter. As to its often happening that the person is not conscious of having been struck by any thing when those injuries are received, it is not to be wondered at, when it is known that sometimes a severe wound is inflicted, and the person not know it until it is pointed out to him, as he gets faint by loss of blood. I knew a man that was wounded with a flattened ball, full two inches in diameter, which lodged deep in the thigh; and when getting faint with the loss of blood, asked his officer for permission to go to the surgeon, as he was afraid he was wounded somewhere, for he was not able to stand. I have also known a musket-ball pass through a part of the body, and the person not be conscious of having been wounded until he discovered the blood: and many instances I have known, of injuries about the face discovered after an action, which had not before been noticed. I have always imputed those little accidents to some light substance having been brought, with great velocity, in contact with the face: but in what way they occurred, whether from the wind of a shot, part of the ship's material, electric matter, or latent caloric developed, I believe it will be difficult for the individual to ascertain in time of action at sea. As to the negative circumstances, which occur against the opinion of the wind of a shot, or even electricity or latent caloric being the cause of those accidents, the instances are very numerous of shot passing very close to the body without doing any injury. In those cases, I suppose, there is nothing carried along with the ball; for the jacket or trowsers, and even the waistcoat, is sometimes torn, without the skin being injured, and even buttons are torn from the clothes by a ball; but this cannot be wondered at when we know that a button may be struck off a coat, by a smart blow with the end of a ramrod, often without the person perceiving it, and no one will think of imputing this to the attractive power of electricity. I knew an instance of a shot which passed through both sides of the cabin of a frigate, and in its course struck a store-room key, (a common-sized door key), that was lying loose, with one half of it exposed behind a looking-glass, at the side of the cabin. The key was bent considerably without being moved from its place, neither did the glass receive the slightest injury. A dollar has been known to have been broken in many pieces in the pocket, by a musket-ball, without the person receiving any injury.

Why should not every cannon-ball that carries away a limb, or wounds the body, bring along with it its other baneful influence? If the cause is produced by the velocity, it cannot be supposed that hitting the body in passing can have impeded much of the velocity; and there are numerous wounds by cannon-balls, where no other part is injured but what has been in actual contact with the ball.

There is what is termed the brush of a ball,—that is, a ball having passed so near, as actually to touch the clothes, and neither tear them nor the skin. This generally produces a numbness, swelling, and inflammation, more or less, according to the part that has been rubbed, and if not early attended to, is apt to produce extensive injury. I knew a case of the kind, where the person being fool-hardy, and wishing to brave it, would not lie by from his usual duty, until he was not able to perform it; the whole gluteus muscle became sphacelous, and ultimately was the cause of his being discharged from the service. And as a person is apt to be struck down by a sudden touch on the stomach, many of the injuries may be imputed to the fall; for instance, a limb might be fractured. I have known such an occurrence, by simply falling on the deck.

As to the fact of cannon-balls carrying light substances along with them, they so very seldom stick in the body, I have had no opportunity to ascertain positively that they do; but with grape-shot, canister-shot, and musket-balls, I have had ample testimony; and I think there is every reason to believe that cannon-balls do also, from the many pieces carried away where the shot have hit or passed through; and it is also pretty evident on sweeping the decks after a battle. And if this should take place on board ship, why not also on shore, where wadding is used of various materials, and a ball may have to encounter, in its passage, shrubs, grass, land, mud, &c.?

That soft substances carried with great velocity will break a limb, I readily believe. I knew a person, in bathing, who fell from a considerable height flat on the water; the breast, belly, and thighs, were as black as if he had been beaten with a stick.

With regard to the pulverizing of the bones, as no instance of that circumstance has come to my knowledge, nor to any of my acquaintance, I can say nothing respecting it; neither can I bring it to my ideas, that it could be effected by the brush of a ball. All other incidents, I think, might be imputed to mechanical force only. I may be mistaken, but I am well convinced there are no accidents which require to be more narrowly watched than those supposed to have happened from the wind of a shot. Inflammation frequently supervenes, and, if not early checked by bleeding, purging, and other antiphlogistics, it will run rapidly to gangrene.

These few unconnected remarks may perhaps induce some, whose experience and knowledge of the phenomenon have been more extensive, to throw more light on this doubtful subject.

Dunfermline, Feb. 1812.

IX.

Report of the Board of Health at New-York, on the Yellow Fever at Perth-Amboy. Communicated, with a Prefatory Letter, by C. Chisholm, M. D. Bristol.

Dear Sir,

I have lately received from a friend at New-York, a copy of the report of a committee of physicians, ordered by the Board of Health of the State to inquire into the evidences of the existence of yellow fever (malignant pestilential) in the city of Perth-Amboy in New-Jersey, in September last. There are some circumstances in this report, of a nature which merits the attention of those who are sedulous in the development of truth, and whose minds have been directed to the establishment of the fact, of the origin of the pestilential fever of the United States of America, in imported infection. The consideration of these has induced me to believe, that the insertion of the report in the Medical and Surgical Journal may be acceptable to you, and to the description of your readers I have alluded to. I therefore have much pleasure in transmitting it; and I avail myself of the opportunity my doing so furnishes, to take leave to point out two or three of the most prominent of the circumstances which have more particularly engaged my attention. One is the positive refusal of the medical health officers to form a part of the committee, although requested so to do by the Board of Health; and the almost positive refusal of the officer more immediately employed in the preservation of the city of New-York from imported infection, to give the committee that information, which it was his duty to communicate, and which might have so essentially contributed to the welfare of the public. You will recollect, that on an occasion precisely similar, this very physician, Dr Rodgers, conducted himself in precisely the same manner. The motives to this extraordinary conduct, and the pernicious consequences resulting from it, I have stated in my letter to Dr Haygarth, to which I beg to refer. Another prominent circumstance is, the elucidation of the fact of imported infection, obtained through the candour and liberality of gentlemen at Amboy, who, from a correct and judicious performance of their civil and medical duties, had been able to trace the origin, progress, and character of the evil. I more particularly wish to lean on this circumstance, because it points out the eminent importance to a community, of possessing men who, from principle, will discharge the duties of good citizens; whilst it exhibits the destructive consequences of placing in situations of high trust and responsibility, men who, to serve the sinister purposes of a party, avoid the investigation of truth, communicate false colouring to it, or employ the means of subterfuge aud prevarication, to divert the public attention from it. I am not too severe in these animadversions. Severity to the guilty becomes safety to the innocent. And having, on a former occasion (Letter to Dr Haygarth) used full freedom of remark, without, hitherto, any attempt at refutation of the premises on which I founded it, I have a right to believe I acted on sound principle, in relation to the public and myself. Another circumstance deserving particular notice, is, that the locality of Perth-Amboy, excludes all peculiar causes of disease, such as marsh exhalations, reflected heat, imperfect ventilation, &c. In the course of my military medical duties during the revolutionary war in North America, I often resided at Amboy for weeks at a time, and have consequently a perfect knowledge of its situation. The fact of imported infection is therefore the more firmly established.

Before I leave you to the perusal of the report, permit me to inquire, whether you have been in the habit of receiving and reading my friend Dr Hosack's Medical and Philosophical Register of New-York. Dr Hosack, seeing the extremely pernicious tendency of the promulgation of a doctrine, which has for its sole object the exclusion of infection from every instance of fever in the United States of America, whether such exclusion was manifested by truth, or supported by falsehood, determined on diffusing a pure and uncontaminated knowledge of the matter of fact, and by fair and unsophisticated representation, presenting his countrymen with the power and option of acting decidedly and judiciously for their own preservation. By thus withdrawing the mask from the propagators of a most destructive theory—by thus disabusing the honest credulity of his fellow-citizens,—it is evident he may be the means, under Heaven, of conveying to them a benefit of incalculable importance. He has entered the lists armed with truth and rectitude of intention, and with a consequent boldness and strength of attitude and feature, that hitherto, as they ought, render him invincible; and every lover of humanity will wish to borrow the sublime imagery of the apostle, that therewith he shall be able to quench all the fiery darts of the wicked. I remain, &c.

Bristol, Upper Berkely Place,
January 10, 1812.

C. Chisholm.

Board of Health, September 16th, 1811.

PRESENT—The Honourable DEWITT CLINTON, President.—*Aldermen*, Mesier, Carpenter, Fish, C. Pell, Cunningham, Buckmaster, J. Pell, Dickinson, Hoogland, Torrey.—*Doctors*, Miller, Bayley, and Douglass.

INFORMATION having been given to the Board, that a dangerous, malignant, and infectious fever now prevails at the city of Amboy, in New-Jersey, it was resolved that it be recommended to his honour the Mayor to issue his proclamation, interdicting all communication between the said city of Amboy and this city.

Resolved also, that a committee be appointed to confer with the Health-Officer at the Quarantine Ground, and obtain from him, and from such other sources as they shall judge advisable, information of the existence of the said disease, and other facts deemed necessary by them; and report with all convenient speed to this Board.

Resolved, that the committee appointed be, Dr Joseph Bayley, Dr John H. Douglass, of this Board, and Dr David Hosack of this city; and that the health-officer, Dr Rodgers, be associated with them.

Board of Health, September 19th, 1811.

PRESENT—The Honourable DEWITT CLINTON, President.—*Aldermen*, Mesier, Carpenter, Dickinson, Cunningham, Hoogland, Buckmaster, C. Pell, and J. Pell.—*Doctors*, Jones, Miller, Bayley, and Douglass.

The minutes of the meeting of the 16th were read and approved.

The committee appointed to confer with the health-officer, and to ascertain the facts respecting the disease prevailing at Amboy, presented the following report; which was approved, and ordered to be entered on the minutes.

Report of the Committee appointed by the Board of Health, to investigate the Nature and Origin of the Disease now prevailing at Perth-Amboy, New-Jersey, addressed to the President and Members of the Board;—

GENTLEMEN,

Agreeably to the instructions conveyed by the resolution of the Board of Health, we yesterday proceeded to Perth-Amboy, for the purpose of obtaining information relative to the nature and origin of the disease at present prevailing in that city. The health-officer, Dr Rodgers, having been appointed with us a member of the committee, we waited on him at Staten-Island, with the hope that, as he had been at Amboy, and had seen some of those persons who had died of the disease, he would have had it in his power to furnish the information required, and perhaps rendered our visit at Amboy unnecessary; and in case he should not be in possession of the facts which would be expected by the Board of Health, to request him, as a member of the committee, to accompany us for the purpose of making the necessary inquiries. Upon our arrival at the Quarantine Ground, we accordingly stated to the health-officer, that information had been received by the Board of Health, of the prevalence of an infectious disease at Perth-Amboy, which had excited considerable alarm among the citizens of New-York: That in consequence of this information, the Mayor had thought it necessary to issue his proclamation, interdicting the communication between the two places, and that the Board of Health had appointed a committee, for the purpose of inquiring into the facts of this subject: That Dr Miller, the resident physician, had been requested by the Board to be a member of the committee, but, owing to unavoidable engagements, he had declined the appointment: That thereupon they considered it expedient to request the health-officer to perform that duty; and, understanding that he had already been at Amboy, and had expressed an opinion of the nature of the disease, they had been in expectation of receiving from him an official statement of the facts that were now sought for.—Dr Rodgers replied, "that he did not consider the Board as having any right to expect a communication from him, relative to a fever at *Amboy.*"—We then observed, that as a constant communication existed between Amboy and New-York, and that, as the disease might be conveyed to the latter city, they expected from him, as the centinel at the out-post, every information in his power to communicate; and that, by a resolution of the Board, they certainly did expect that he would also communicate to us the facts that had come to his knowledge.—Dr Rodgers then stated, "that when this disease might come under his review at the Quarantine Ground, he should consider it his duty to make such communication, but not till then;" and added, "you had better, gentlemen, proceed to Amboy to seek information for yourselves;" that his duty did not permit him to accompany us; that he should go again to Amboy to-morrow, and pay a visit of friendship, as his two former visits had been, but should not go in an official capacity. We then expressed the hope, that if he did not think it proper to accompany us, that he would favour us with his opinion of the nature of the disease, and the facts relative to its origin. This also he declined; observing, "that he was delicately situated, and did not wish to express to us an opinion on this subject." We then asked him if he had any objection to give us a statement in writing for the information of the Board, and that we would call for it on our return from Amboy. This he also begged leave to decline; adding, however, that if the Board of Health would do him the honour to address him a letter stating the points on which they wished information, he would answer their questions. We then read to him the resolution of the Board, requesting us to obtain from the health-officer such information as he possessed on this subject; and added, that we considered the application conveyed by the present resolution, as sufficiently respectful and expressive of the wishes of the Board, for him to communicate the information requested: He, however, persisted in declining to express to us, a committee from the Board, either verbally or in writing, any opinion on this subject, repeating "that his situation was a very delicate one." We then observed, that we had understood he had publicly expressed his opinion, at Amboy, of the nature of the fever prevailing there: He acknowledged he had visited Mr Kearney at Amboy, that he had also seen Mr Compton, and that he did express to the two physicians of that place, and in presence of a third person, that Mr Kearney's case was that of "malignant fever of the highest grade." As the term malignant fever appeared to us of ambiguous import, we next inquired if he considered the fever referred to as the *yellow fever?* To this question he answered, he disliked the term *yellow fever*, considering it an improper one; but admitted that the disease was such as would by many persons be denominated yellow fever, and particularly mentioned, that the patient had the *glassy eye* and *yellow skin*. We next asked him if Mr Kearney had had the *black vomit?* to this he replied in the affirmative; but that in the other case the stomach was not so much affected: He also stated, that Mr Kearney had been subject to attacks of *bilious fever*, and that, upon this late occasion, he had been very much fatigued, and prior to his attack, had been exposed to the sun without an umbrella. We repeated our request, that he would accompany us on our visit; but he again declining to comply with our wishes, we considered our conference at an end. We immediately proceeded to Amboy, and called upon Mr Daniel Perrein, the collector of the port, and Dr Nathaniel Manning, the physician who had attended on all those who had been attacked with the disease. The other physician being out of town, we had no opportunity of conversing with him. Dr Manning informed us, that he had lost four patients with a fever which, from its peculiar symptoms and great mortality, he considered to be the yellow fever: that although he had been two years and a half a practitioner at Perth-Amboy, and his partner, Dr Freeman, had practised medicine in the same place many years before him, and both had been familiarly conversant with the fevers which ordinarily prevail in that city and its vicinity, particularly the bilious remittent, yet that they had never before the present season, met with any fever attended with the symptoms of that of which their late patients had died, and with which others at that time were affected; and, as farther evidence, Dr Manning remarked, that at that very time he had patients ill of both diseases, each exhibiting its characteristic symptoms, and invited us to see them. He also stated, that our health officer, Dr Rodgers, had visited with him two of the first cases, and had pronounced them as decided cases of the yellow fever as he had ever seen.

Dr Manning then gave us an account of those persons who, in his opinion, had died of the yellow fever; namely, James Compton, who was attacked on the 7th, and died on the 10th instant; —James Kearney, attacked on the 9th, and died on the 14th;—Joseph Compton, attacked on the 11th, and died on the 15th; and Mrs Crowell, also attacked on the 11th, and died on the 15th. He observed that a Mrs Marsh, an elderly lady, died yesterday morning, the 17th, after a week's illness; but her disease did not appear to be characterized by the same symptoms that had distinguished the cases of the first persons that have been mentioned. The first four, he remarked, were all seized with severe pain in the head, back, and limbs, attended with a highly inflamed state of the eyes. On the second or third day the skin, especially about the neck and breast, became yellow, which colour gradually extended over the greater part of their bodies; and, in all, the stomach was very much affected with a sense of heat or burning, and rejected almost every thing received into it; which symptoms he had never found associated in the ordinary autumnal, or any other fevers in that place or neighbourhood. We asked him particularly, if he had seen Mr Kearney in any of his former attacks of fever, to which he had been subject in the autumn, as before related to us by Dr Rodgers? He replied, he had been his physician in two such attacks, and that his disease exhibited the ordinary characters of our common autumnal remittent fever, and was totally different from the inflammatory symptoms with which he was attacked in his last illness. He particularly remarked, that Mr Kearney threw off a great quantity of black matter, resembling coffee with the grounds, and mixed with other portions in the form of flakes. We next asked Dr Manning for his opinion relative to the origin of this extraordinary disease. He replied that there was but one opinion, either with the inhabitants or physicians, namely, that it was derived from some of the West India vessels, which had been lying at the wharves; observing, however, that the brig Ocean, from St Bartholomews, was the vessel which the inhabitants in general supposed to have introduced it. The town we observed to be remarkably elevated; the soil chiefly composed of sand; free from all lodgments of water; the streets wide; and the houses, for the most part, spacious, and at a considerable distance from each other; and the whole town exhibiting an uncommon degree of cleanliness. Dr Manning also informed us, that there were no local causes to which this calamity could possibly be referred, and that it could only be accounted for as arising from intercourse with the vessels at the wharves; and that the citizens were so perfectly convinced of this fact, that they had ordered them to be removed to the stream. He further stated, that Mr Kearney and the two Mr Comptons had all been frequently on board the *brig Ocean*, and another vessel lying along side of her, the *ship Favourite*, from the Havanna, both of which vessels had come consigned to Mr Kearney.—He also observed, that Mr Joseph Compton had not only been on board of the vessels at the wharves, but that he had sat up with his brother James, during his illness. Mrs Crowell, the fourth person mentioned, was the wife of a ship-carpenter, who resides at the head of the wharf, within 60 yards of the said vessels. Dr Manning also stated, that Mrs Crowell was so near to the vessels, that upon one of them (the Ocean) having her bilge water pumped out, she was made very sick by the smell of it, the wind blowing directly towards the house, and into her apartments, and that she herself, during her illness, frequently declared to her physician and friends, that in her opinion she had thus taken the disease. It will be readily observed, that the same wind which blew the effluvia of the bilge water, would also convey the poisonous vapour from the adjoining vessel. Having received this information from Dr Manning, we accompanied him in his visit to five of his patients whom he considered to be the most dangerously ill. We united with him in opinion, in pronouncing three of those, viz. Miss Ann Taylor, Captain James Baynon, and Mr Voorhees, to be *decided cases of yellow fever*. The diseases of the two others, Mr Semple and Mr Kane, were readily distinguished as the *common bilious remittent of autumn*. The alarming situation of Miss Taylor particularly arrested our attention, although this was the second day of her illness; her symptoms (so peculiar are the features of this disease) were of a character, that declared her to be in the most imminent danger; and with all the kind assistance she receives from her amiable sisters, and the skill of an attentive physician, we have too much reason to fear that she must soon be numbered among the victims of this deadly disease. Miss Taylor resides some distance from the source of infection, but, on inquiry, we found that she had been unfortunately in the neighbourhood of the vessels, by frequently visiting a friend in the house adjoining to that in which Mrs Crowell lay ill and died, and that too at the very time of Mrs Crowell's illness. We learned also, that the other persons taken ill, had been exposed either directly by being on board the vessels, or by visiting those who were ill of the disease. Many other persons, Dr Manning informs us, had been just seized with fever, but so recently, that he would not yet undertake to pronounce on the character of the disease. Our attention was also directed to the vessels supposed to have introduced the fever. For this purpose, we applied to the collector of the port, who furnished us with the following facts.—That twelve vessels had arrived at that port from the West Indies, since the 1st day of June. That many others had arrived from Ireland, full of passengers, in a most filthy condition, but remarkably healthy. He then informed us, that the brig *Ocean*, the vessel at first suspected, arrived at the wharf on the 4th September, from Bartholomews; that she was laden with rum, sugar, molasses and coffee; that four or five days after her arrival she began to discharge her cargo. The master, Captain Sutton, being in New-York, we had no opportunity of obtaining any information from him. The Collector stated, that Mr Kearney, as the consignee, was frequently in the hold of the vessel. Captain Little, a passenger in the Ocean, informed us, that her crew had been healthy, but admitted that her bilge water was in a very offensive state, and that, in this respect, she was a filthy vessel, but not more so than West India traders in general. Mr Perrein next stated, that the ship *Favourite*, James Stuart master, the other suspected vessel, arrived from the Havanna, and came to the dock on the 30th August, and was also consigned to the late Mr Kearney, and that she, with the other vessels, was removed to the stream on Sunday last; he added, that Mr Kearney, the consignee, and the two Mr Comptons, had been also frequently on board of this vessel. Captain Stuart being in Amboy, we availed ourselves of the opportunity of conversing with him, relative to the state of his vessel. He, with great frankness, gave us every information we requested. He stated, that he first went to North Carolina, from Perth-Amboy; that he next proceeded to Falmouth, (Jamaica), and from thence to the Havanna, and that he had brought the crew all back with him in a state of health; that they had all been several voyages to the Havanna, some three, four, and five voyages, and were all well seasoned to the West India climate: he also acknowledged *that it was very sickly at the Havanna when he was there.* Upon questioning him relative to his vessel, he also very candidly stated, that his ballast had not been shifted from the time he left Amboy to this day. Such are

are the facts we have been enabled to obtain on this subject, and which we beg leave to present to the Board without delay. As it has been made our duty to express an opinion of the nature and origin of the disease in question, we feel no hesitation in saying, *first*, that the disease, in our opinion, is that commonly known and described as the *Yellow Fever*; and secondly, that it has been satisfactorily traced to one of the two last mentioned vessels, arriving from the West Indies, and that it has most probably been derived from the *ship Favourite*, *from the Havanna*, which is by all acknowledged to have been a sickly port at the time of her sailing. Nor do we conceive it to be an objection to the correctness of this opinion, that the crew remained healthy throughout the voyage, as it is also stated, that by the several voyages they had made to the Havanna, they had become seasoned to that climate. It will be readily recollected by the Board, that a similar instance occurred in July 1809, at which time two persons from this city, worked on board the brig Mary, a vessel from the Havanna, then detained at the Quarantine Ground, and were seized with the yellow fever, of which they died in this city, although the crew of the same vessel had been in perfect health during the whole of her voyage.

We cannot conclude this communication without remarking, that Mr Perrein, the collector at Amboy, and Dr Manning, a physician of the same city, are entitled to our acknowledgments for the very unreserved and candid manner with which they communicated to us the information they possessed relative to the subject of our inquiries.

We are, gentlemen, very respectfully,
Your humble servants,

David Hosack,
New-York, September 18, 1811. Jos. Bayley,
John H. Douglass.

To the President and Members of the Board of Health.

Extracted from the Minutes,—J. Morton, Secretary.

The Board of Health of Philadelphia have issued a proclamation, prohibiting all intercourse and communication between the city of Amboy, and the city and county of Philadelphia, on account of a pestilential disease prevailing in the former city. Persons, after leaving Amboy, must perform 14 days quarantine before they can be admitted into Philadelphia.

X.

Some Remarks on the Fevers of Sicily; with an account of the Autumnal, or Bilious Remittent Fever of that Island, as it appears among the British troops. By ALEXANDER BOYLE, A. M. Surgeon to the 62d Regiment of Foot.—Communicated by N. BRUCE, Esq. Surgeon to the Forces.

THE febrile diseases, which usually prevail among the British troops in the island of Sicily, are not of great variety; and those which demand most attention, and which most frequently occur, are the invariable attendants of summer, or of the early part of autumn; while those to which the soldier is exposed at other seasons, differ not, in any important or essential symptom, from the same diseases, as they commonly appear in more temperate and northern latitudes.

In all climates, indeed, diseases of this class have certain symptoms in common, which constitute their permanent character, and establish a certain affinity among the whole. In those of Sicily, this affinity becomes still closer, inasmuch as they all may be ranked among the diseases of increased excitement. Local inflammation seems to be always present; and is, in general, sufficiently manifested by the appearance of some external affection, or the lesion of some important function.

In organs, however, which display a wide sympathy with other parts of the system; whose functions are various, or intimately connected with the phenomena of life; it becomes extremely difficult to analyze (if I may use that expression) the changes and appearances frequently produced by local inflammation of those parts; and, except such symptoms as are common to the whole of the *Pyrexiæ*, it often happens, that no peculiar or distinctive sign is to be observed. Such, indeed, is the mutual relation and dependence established between certain organs, that, when invaded by inflammation, the generic characters of the disease, or those depending on the lesion of the natural function of the part, necessarily become obscure, and are only to be detected by the careful and diligent observation of facts. The assistance afforded by anatomy, therefore, is not to be neglected. It opens the most authentic sources of information, and displays a wide view of the causes of diseases proceeding from disordered structure, or peculiar arrangement of parts, and thereby enables us to arrive at the explanation of some of their most important phenomena. The road to truth, however, it must be acknowledged, is intricate; and it is only by slow and difficult steps that we can arrive at general conclusions. "Medicinam citò discere, non est possibile, propterea quod impossibile est statam, et certam doctrinam in ipsa fieri." *Hipp. de locis in homine.* In a great number of cases, however, such as acute rheumatism, pneumonia, as also in many of the profluvia, which are closely allied to inflammation,* the seat of the disease is made sufficiently apparent, by certain obvious and unequivocal symptoms, depending on the peculiar structure and office of the organ concerned, which constitute their distinctive and generic signs.

It is universally allowed, that the more general symptoms of pyrexiæ, or those in which they all agree, are permanently uniform; and their similitude, in this respect, it is presumed, may depend on the similarity of their proximate cause. In the above examples, this is easy of detection; and, in the febrile diseases of this country, it will be found to consist in an increased vascular action, or determination to some particular part, produced by the application of specific causes, aided by certain circumstances of constitution or mode of life, affecting the general habit.

In a former communication,† concerning the febrile affection which prevails during the torrid months of summer, those causes were partly explained, the chief of which is found to be the direct action of a powerful and vertical sun. That other causes may also contribute to produce this disease, it is not my intention to deny; as, like all inflammatory diseases, a predisposition will no doubt be formed by whatever tends to produce a plethoric state of the vascular system, whether referable to diet, exercise, or the suppression of the natural or accustomed evacuations and secretions. These, however, are to be regarded solely, as *occasional causes*, which equally favour the operation of a variety of other powers *directly* applied, which are distinguished by the appellation of exciting causes, and whose mode of application and action, as in the present instance, determines the seat of the disease.

It may in this place be observed, that, during the winter also, fevers occur in which the head is sometimes affected; but, in such cases it is seldom a primary disease, this affection only supervening in consequence of metastasis, and appearing as a symptom attending violent attacks of other diseases caused by checked perspiration and vicissitudes of temperature; as pneumonia, catarrh, acute rheumatism, and the like. In a certain epidemic inflammation of the lungs, mentioned by Morgagni, its appearance was very common; and more recovered in whom this symptom was observed.—Morgagni, Epist. 7. Art. 12.

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* Cullen's Synopsis—Order *Profluvia.*

† Edin. Med. Journal for October 1810.

To the disease of summer, I assigned the title of Cephalitis. To ascertain, however, by any train of symptoms, what particular part of the encephalon is more especially affected, it must be readily allowed, implies a degree of discrimination, at least, not easily to be attained; and it is even doubted by some, whether the road to this discovery could be much facilitated by dissection. *

It is supposed by Galen, that the pulse affords some information on this subject; and that when the cerebellum is affected, it becomes weak, undulating and tremulous. This is undoubtedly an alarming symptom, and invariably indicates extensive derangement of the structure of the brain. Such, however, is the connexion throughout the system of vessels distributed on this organ, that, in whatever part the inflammation does begin, it will, no doubt, speedily affect the energy of the whole.

It is nevertheless certain, that the effects of simple inflammation are very different from those of mere compression, whether it proceed from effusion, or from vascular congestion; and it is equally true, that the symptoms of both may be combined in various stages and degrees. The appearance of serum or coagulable lymph is very common, even when no redness or turgescence of the vessels remains; and which, though (as is supposed by Morgagni) it had previously existed, disappears on a copious effusion taking place; at which period, the symptoms assume a different complexiou, constituting what I have called the second stage. It may, perhaps, therefore be admitted, that the great tendency to early effusion in this disease, is the cause of furious or phrenitic delirium being so rarely met with.

The absence, therefore, of furious delirium (I may say, almost in every case, the exceptions being so very few), and the great tendency to drowsiness and coma, even in the earliest stages of disease, establish some difference between it and what is nosologically termed *Phrenitis*. It is therefore, perhaps, with some propriety, that another species, characterized by such symptoms, has received a place in some systems, under the title of *Cephalitis.*

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* Cullen's Synopsis.

In my paper, which appeared in the Edinburgh Medical Journal for October 1810, I adopted this term; not so much, however, with a view to nice distinction, or a display of nosological accuracy, as with the design of fixing the attention on the conspicuous features and seat of the disease, expecting thereby to obviate more readily some errors in practice, which I conceived had arisen from its having formerly been universally considered a simple *idiopathic* fever—and as, for the reason above assigned, the term phrenitis, though of the same family, did not appear altogether so appropriate, or to combine so many of the circumstances attendant on this complaint.

On this part of the subject I shall not now detain you long, as I shall, perhaps, resume it at a more convenient opportunity. I shall therefore only briefly mention, with respect to the method of cure, that I have recently learned that blood-letting had occasionally been practised in certain fevers of this country, at a period somewhat anterior to that at which I had fixed its introduction. The practice, however, of *copious* blood-letting, has not been long general among medical men in this army; and I presume, it can only be dated from the time that the appearances on dissection of two patients, who died in Melazzo, in July 1809, (as related in my former paper), served to establish a more rational pathology of the disease. Previously to this, it is apprehended no fixed principles were known, to guide or direct its use; and we may thus, perhaps, account for the practice having been, for the most part, feeble and undecided. Though it might, for a moment, retard the progress of the disease, it was seldom sufficient to subdue it.

The symptoms of the second stage, in the mean time, began to make their appearance, and seemed to direct an opposite mode of treatment; and the result was generally fatal. Those symptoms which had formerly been attributed to debility, were now traced to their true origin; and the plan of giving bark and wine, when this stage approached, was universally abandoned, as soon as the testimony of indisputable facts superseded fallacious hypothesis and conjecture.

The vicissitude of seasons, and the various modifications of atmospheric constitution, powerfully influence the character of diseases, and the appearance of certain epidemics, in this climate. Accurate meteorological observations, therefore, as well as the investigation of those circumstances which properly constitute medical topography, present an interesting field of inquiry, and not only facilitate the investigation of the cause of diseases, but form a branch of knowledge essentially connected with their prevention and method of cure.

In remoter ages, this subject received particular attention; and almost every page of the writings of Hippocrates inculcates the utility of this study,—which was considered, by that great man, not less essential to the physician, in order to enable him to predict approaching changes, and guard against their effects, than it was deemed necessary by the Mantuan poet, for the husbandman and mariner.

> " Hinc tempestates dubio prædiscere cælo
> Possumus; hinc messisque diem tempusque arendi:
> Et quando infidum remis impellere marmor,
> Conveniat, quando armatas deducere classis
> Aut tempestivam silvis evertere pinum.
> Nec frustra signorum obitus speculamur, et ortus,
> Temporibusque parem diversis quatuor annum."

As far as regards the great revolutions of the year, and the periodical return of the seasons, a great uniformity obtains; and the observations of one year on this head, with but little variation, apply almost to every other.

On this depends the great uniformity of the diseases which usher in the different seasons. Those seasons, however, differ materially from each other; and a difference not less remarkable, and important in practice, characterizes the diseases by which they are invariably attended, and which, agreeably to those changes, undergo certain alterations of type, as well as of other important symptoms.

The occurrence of the dry and rainy seasons may always, indeed, be expected with tolerable certainty, at the regular and accustomed periods. The diurnal vicissitudes, however, are very frequent; and, until the hot season has fairly set in, sudden changes of temperature are very common.

From the beginning of June, may be dated the commencement of the hot season; from which time, until the beginning of September, the temperature continues pretty steadily about the same standard, and, as observed in the shade at noon, usually ranges between 82° and 86° of Fahrenheit's scale. During this period, east or westerly winds for the most part prevail; rain seldom falls; and it frequently happens that the months of June, July, and August pass away, even without a single shower. Of these, July is the hottest month, and the thermometer sometimes reaches the 89th degree; while the suffocating sirocco winds commonly continue until noon; after which hour a westerly breeze generally springs up.

About the latter end of May, inflammatory affections of the head begin to make their appearance; but they, as yet, are generally slight. In the month of June, however, and as the heat of the season advances, they become more frequent in their appearance, as well as more violent in all their symptoms.

About the beginning of September, the weather undergoes a very remarkable change, which is more particularly to be attended to, on account of the important influence it exerts as a cause of the disease which now succeeds. Together with a diminution of temperature, rains begin to fall, accompanied with thunder and high winds. About this time, the thermometer falls to 76°, indicating a diminution of temperature, not less than 10 or 12 degrees. This change is sudden, and produces a very conspicuous effect on the nature of the prevailing disease.

The fevers still are of the inflammatory kind; but the affection of the head no longer forms so conspicuous a symptom; instead of which, they now manifest themselves under the form of phlegmasiæ affecting other parts.

The showers however are but transient; the mercury in the thermometer again rises, but does not again attain so great a height; and the weather becomes dry and settled, until about the end of October, when heavy rains set in, accompanied with a considerable and permanent diminution of temperature, which puts a period to the violence and frequent occurrence of the epidemic.

During the winter and spring, pneumonia and acute rheumatism are the prevailing complaints; but those which prove most tedious and fatal, are obstinate dysenteries and intermittents,—the common sequel of violent attacks of the autumnal fever, and dependent on chronic affections of the abdominal viscera.

Owing no doubt to the temperate and abstemious mode of living peculiar to the native inhabitants of these climates, as well as to constitution, and habits formed in infancy, those changes are not observed to operate so powerfully on them, as on the natives of more northern and frigid latitudes; and they are, at all seasons of the year, exempt from those violent attacks of inflammatory diseases to which the British soldier is more particularly subject.

The Sicilian peasantry are indeed uncommonly healthy and robust; and some of the more elevated, and mountainous situations, furnish many instances of athletic constitutions, and remarkable longevity. But wherever opulence and luxury have been introduced, or where these effects are not controlled by salutary laws, they soon become visible, not only in the moral character, but ultimately tend to the degeneracy of the species. Whether, indeed, it may be owing to the same general principle, which invariably is found to stamp the peculiar turn of mind of the inhabitants of alpine regions, I shall not take it upon me positively to determine; certain however it is, that among the Sicilian peasantry, there still does exist a freedom of manner and sentiment meriting some attention; and the idea of degeneracy, which we are accustomed so readily to associate with the name of the Italian, is to them inapplicable. "Ubi enim regio est nuda, naturâ munita et aspera, quæque et a frigore hyberno prematur, et a sole æstivo exuratur, ibi duros et robustos et articulis probe disjunctis, vegetosque et hirsutos reperias homines, et in quibus a naturâ laboris tolerantia et vigilantia insit; quique mores habeant pertinaces, ad iram proclives et contumaces, magisque feritate participantes quàm mansuetudine; insuper ad artes etiam acutiores et plus solertes, et ad res bellicas gerendas aptiores."*

But to return from this digression: On the approach of autumn, the character of the fever, as has been already said, undergoes a considerable change; and though this is effected by apparently slow gradations, one epidemic passing, as it were, imperceptibly into another, they not only differ essentially as to their exciting causes, but also in their origin, and seat; the febrile disease of summer arising from affections of the encephalon, depending on inflammation and its consequences; while those of autumn are more particularly dependent on inflammatory affections of the stomach, and other abdominal viscera.

Those who are attacked at the beginning of the season, still invariably complain of violent headach, languor, and severe pain in the loins, with nausea, and uneasiness in the epigastrium.—These symptoms are ushered in by irregular rigors and lassitude, and are not unfrequently accompanied by profuse sweating over the upper part of the body. From the beginning, there is always a slight cough; but it is seldom such as to give much uneasiness to the patient, or even to be readily attended to by others. The region of the stomach is sometimes tense and painful on pressure, and they complain of a sense of weight and fulness. Vomiting does not always appear on the first accession of the disease, but invariably comes on before the end of the second day, and vast quantities of dark-coloured bilious matter are thrown up.

The state of the bowels is various. For the most part there are frequent, watery, dark-coloured bilious dejections; in the severer cases mixed with flakes, resembling coagulable lymph, and generally tinged with blood. At other times, we meet with obstinate costiveness from the commencement, in which case the symptoms always ameliorate as soon as we are able to procure a free discharge of the alvine matter. The tongue is always moist, and is often covered with yellowish mucus. The thirst is excessive.

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* Hippocr. de Æribus, &c.

During the early part of the disease, the general febrile symptoms are such as denote increased vascular action; the pulse though soft, is always full, and usually exceeds 100 strokes in a minute. The countenance is full and florid; the eyes are lucid, and the vessels of the conjunctive coat are commonly injected with blood. These symptoms form the first series, and seldom continue beyond the third day.

As they abate or disappear, the patient shows extreme anxiety and restlessness, writhing with inexpressible agony, and changing his posture a thousand times, without finding ease or repose. Every thing received into the stomach is instantly rejected; the tongue becomes covered with dark, inky, or yellow-coloured matter, and the thirst unextinguishable.

About this time the countenance undergoes a remarkable alteration, bespeaking the sufferings of the patient. The eyes lose their lustre, and, about the fifth or sixth day from the commencement of the fever, the albuginea, and whole surface of the body, assume a dull yellow tinge. The pulse increases in frequency, and, in three or four cases, I have been able to count 140 strokes in a minute. It is very hard, and sometimes even continues full and soft, till within a few hours of the fatal termination of the disease.

The surface of the body always, at the beginning, exceeds the natural temperature, communicating to the hand an acrid pungent sensation; but about this period it sinks to the ordinary standard.

Hæmorrhagy sometimes takes place from the nose, and it generally denotes a favourable change, which, however, is still more certainly to be expected from a return of the natural complexion, and whiteness of the albuginea. These form the second series of symptoms, which may continue two days longer; and are then succeeded by a state of quietude and great prostration of strength.

Delirium is seldom present; and though, during this stage, they lie apparently asleep, yet, when interrogated as to their feelings, they readily answer; they tell you they have no uneasiness, and appear perfectly in possession of their intellectual faculties, until the moment of their death. As this period draws near, the breathing always becomes very laborious, with heaving of the abdomen, and strong action of the pectoral muscles, and the breath is forcibly drawn through the nostrils. The vomiting sometimes ceases about this period; and it occasionally happens, that when stools are procured by medicines, they have a natural appearance. Flatulence sometimes appears at the beginning, but it more frequently takes place at this period, and is accompanied by singultus—and, after this last symptom, I never saw one recover. The forehead is now bedewed with cold calmmy sweats; the countenance assumes a deadly paleness; the extremities become cold; the pulse sinks; and they expire with composure. The course of the disease is rapid; and it generally terminates before the ninth day.

Though such is the more frequent mode of attack, it sometimes, however, happens, that its approach is not only less violent, but also less sudden. In this case it begins with loss of appetite, irregularity of the bowels, and sense of weight in the region of the loins, with heat and distension about the præcordia. They are listless, and averse to every exertion, both mental and corporeal. These premonitory symptoms are frequently the harbingers of the most serious attacks. They are attended with languor, anxiety, and great prostration of strength. Sometimes irregular flushings of heat succeed; but neither the temperature of the body, nor the state of the pulse, indicates any material deviation from a state of perfect health.

In this variety, the determination to the head is less conspicuous; and the eyes, though lucid and bright, are never suffused with blood. The thirst is not to be extinguished; the tongue is moist, and of a pale smooth clay-colour. While these symptoms continue, there never is much expression of pain or uneasiness; but this I have found one of the most dangerous symptoms, and which, in almost every case, portends a fatal event. Vomiting sets in soon after, with hiccup, and fruitless efforts at stool. Hæmorrhagy from the nose, though less frequent in this form of the fever, nevertheless sometimes does occur, and is almost always accompanied by petechiæ, or large irregular livid blotches on the arms and thighs; the pulse becomes full and bounding, and some other such marks of general hæmorrhagic tendency appear, and which are always to be regarded as highly dangerous. Other eruptions, however, are sometimes discovered, which afford evident relief from the most obstinate vomitings and bilious diarrhœa. They are generally of the miliary kind, or resemble urticaria, and are to be regarded as favourable omens.

In the case of a lad, about twenty years of age, who was affected with violent symptoms, with a full soft pulse, beating 120 in the minute, attended with insessant vomiting, and slimy bilious evacuations by stool, great anxiety and restlessness, an eruption of the nature of urticaria, in blotches about the size of the hand, appeared on his thighs and arms on the fourth day of the disease, and gradually spread over his whole body. Towards the evening of the same day, the vomiting ceased; a copious sweat broke forth, and the pulse fell to 84. On the following morning the eruption had nearly disappeared, and the surface of his body was still covered with gentle moisture; he had five liquid stools, of a natural colour, during the night; the vomiting had not returned, and the anxiety and restlessness had entirely ceased. This case occurred about the latter end of September, and terminated afterwards in tertian intermittent, which was finally cured by the internal use of mercury.

It is not always, however, that the disease preserves this uniform continued course, but is subject to diversity of form, not less frequently affecting its type, than its manner of approach and early symptoms.

When the epidemic first appears in the early part of autumn, the general febrile symptoms preserve the most continued form, nearly throughout the whole progress of the disease, and only show some tendency to remit, after the violence of the excitement has been subdued. At its commencement, therefore, it bears a very strong analogy to the bilious remittent fever of all warm climates; it is closely allied to that fever which annually visits other parts along the shores of the Mediterranean sea; and it seems to differ only in degree, from those more dreadful epidemics, whose ravages, at different times, have been so severely felt, throughout the greater part of the western hemisphere.

In a late publication, however, on the diseases of Sicily, and under the title of Autumnal Fever, the history of a disease is given, which, in some essential symptoms, differs considerably from that which I have now described. To this circumstance, it, in this place, behoves me to advert. Had the author survived, it doubtless would not have escaped his notice. The service was prematurely deprived of his abilities; he is no more, and I shall not attempt to explain it. I respect his memory, and I admired his talents.

At a more advanced period of the season, the fever frequently assumes the intermittent type, and becomes continued after the second or third revolution. At other times, it occasionally also, though of the most continued form during the first and second days, and attended with symptoms of considerable excitement, readily intermits on the abstraction of a moderate quantity of blood; still, however, distinctly marked by its specific and peculiar signs, depending on local organic disease.

Those varieties are most frequently observed after the disease has prevailed some time, and are materially influenced by the changes which then take place in the sensible condition of the atmosphere, accompanying the regular revolution of the seasons, and are such as regard either its temperature or humidity.

In Sicily, this fever usually makes its appearance about the same time that cholera morbus and other disorders of the biliary organs are known to prevail, and both diseases seem to arise from causes nearly of a similar nature. It indeed appears to be essentially necessary to the production of this fever, that a considerable diminution of temperature, accompanied with much humidity of the atmosphere, should *suddenly* succeed to the long continued heat of summer. By those causes, an important change is effected in the balance of the circulation, causing an unusual determination to the abdominal viscera, and producing congestion and inflammation of the hepatic system, in various degrees, followed by an increased and vitiated secretion of bile.

It is therefore on this change first taking place, that the fever is most severe, as well as most fatal in its tendency. It then assumes the most continued form; and the local symptoms are at this time also most violent, which seems to be owing to the intensity and sudden application of the cause; for, after its first effects have passed, and the body has for some time been habituated to an atmosphere of a much lower degree of temperature, the cases which follow are of a less formidable nature.

But whatever type this fever may assume, or how complex soever and involved its revolutions may appear, the local and characteristic symptoms are the same, and differ only in degree. This variety of type I am therefore inclined to consider rather as accidental, than as constituting any essential difference in the nature of the disease, which I conceive to be radically the same, and to be cured on the same general indications, which are directed solely to the relief of the local affection, and not to be regulated by any peculiarity of type the fever may put on.

As the disease always arises from local inflammation, the common circumstances which favour the production of all diseases of this class, are those which also tend to give it the continued form; while debilitating powers, within a certain limit, in proportion as they subdue the activity of the local inflammation, dispose the fever to remit, and, in many instances, even produce complete apyrexia. As I have already said, this is often effected by copious and early evacuation; while, on the other hand, stimulating medicines, or a few doses of bark, imprudently administered, increase the severity of all the symptoms, and produce a continued fever.

Though the young, plethoric, and robust, are most subject to attacks of this disease, as far at least as I have had an opportunity of observing, persons who have but newly arrived in the island, about the time it begins to appear, are seldom seized; though they are invariably most liable to suffer from summer fever, while those who have resided in the island during the preceding summer, are its common victims:—from which it seems highly probable, that, during the hot season, the rudiments of the disease are in some measure formed, and are called into action on the first approach of autumn, or in situations where the common exciting cause of this disease most usually prevails.

About the time this fever began to appear in the 62d regiment in 1811, a detachment of eighty recruits arrived from England. They were young and vigorous; they were subjected to the same mode of life, and lodged in the same buildings with those who had lived some years in this country; but among them not a single case of this fever made its appearance, and every man who was taken ill, had at least been twelve months in the island. From the time the fever assumed a decided character, which was about the 1st of September to the end of October, eighty patients were admitted into the Regimental Hospital, and very few indeed exceeded 28 years of age. Thirteen cases terminated fatally. It is, however, to be observed, that, among these, are included three patients who died after the third week from the date of their admission into hospital, and who were carried off by a dysentery, supervening after the fever had been overcome.

Though bilious remittent fever is more particularly a disease of autumn, it is not only more predominant, but its appearance is also more early, in certain situations, whose local circumstances and topographical relations subject them more generally to the influence of similar changes of atmospheric constitution.

Thus, all situations in the vicinity of the coast, particularly such as are not much elevated above the level of the sea, independent of the proximity of marshes and exposure to putrid effluvia, are extremely favourable to the production of this disease. Few situations are more unhealthy than low grounds bordering on large *fiamave*, where they terminate in the sea; the waters of numerous springs, descending from the mountains, filtrate through the loose and stony soil, till they reach the bed of the ocean. In such places, water may be found at no great depth from the surface, by which the surrounding atmosphere, if not freely exposed to strong winds, is loaded with humidity; and diseases of the alimentary canal, arising from checked perspiration, are common. The disease was often produced among the soldiers by severe night-duty; and, not unfrequently, it was traced to exposure to a shower of rain. Much also depends on the nature of the prevailing winds; for those places which are exposed to winds, which blow over a vast tract of ocean, are always most unhealthy; and we observe, *cæteris paribus*, that the more elevated the situation, or the more remote from the sea, the more healthy is it found; as the vapour with which these winds are saturated, is either intercepted by intervening obstacles, or absorbed on its passage over a scorched and arid soil. It has been remarked by Hippocrates, that westerly winds are most unhealthy; "venti enim occidentales similes autumno sunt."

I have never known an instance of its being propagated by contagion. In this country the *febrile diseases* of this class are very few, and, as far as my observation goes, are entirely limited to the exanthemata.

From every observation I have been able to make, and from the most careful attention to a vast number of cases of this disease, which have come under my care, in the course of five years practice in this country, as a regimental surgeon, I must acknowledge, how contrary soever it may be to generally received opinions, that I am not inclined to attribute much to the operation of what we commonly understand by *marsh miasma*; and I have not been able, in any case which I have seen, by direct or irrefragable proofs, to trace the origin of this fever to such a cause. Indeed, were the putrid effluvia of marshes so powerful, or the sole agent on this occasion, we should expect that the intermittent form would have been most common at the time this cause is generally supposed to be most predominant, namely, during the time that rains were not yet exceedingly abundant; while, at the same time, the temperature of the atmosphere suffered only one transient diminution, being immediately again succeeded by intense heat. During this period, however, the disease was most severe, and also preserved the most continued form; and only slight and obscure remissions were observed towards its termination;—for it was not until the weather had become finally settled, and permanently colder, and that the rains had totally ceased for several weeks, that the symptoms became milder, and the intermittent form more common.

Many, indeed, who have escaped from the more violent attacks of the disease, relapse in the month of December, and are then seized with obstinate intermittents. Such cases are generally accompanied by general dropsy or fatal dysenteries, produced by chronic diseases of the liver, spleen, or other abdominal viscera.

It is supposed, therefore, agreeably to the foregoing facts, supported by the evidence of numerous dissections, that certain diseases of those viscera are to be regarded rather as the origin and cause, than the consequence of this fever, under whatever variety of form it may appear; and it is not imagined that the enlargement of those viscera, so frequently observed in subjects who have suffered from repeated attacks of such fevers, affords any argument against the general doctrine which I have endeavoured to establish, but may, perhaps, be more rationally accounted for, by the successive repetition of some power, on whose casual application the chronic diseases of those parts assume a more acute form, at length producing total ruin of their structure, as well as increase of size.

The succession and order of the symptoms, marking the different stages and types of this fever, will be readily explained by the appearances on dissection, and seem to depend chiefly on the degree of inflammation, and the sensibility of the part concerned. When the liver is very violently affected, the symptoms sometimes even resemble those of hepatitis, and which more especially appear at the commencement of the fever; and inflammation of the stomach is sufficiently characterized by the anxiety, restlessness, vomiting, and prostration of strength, which immediately follow.

As a common consequence of extensive peritoneal inflammation, we sometimes find a quantity of serum effused into the cavity of the abdomen, and various adhesions formed between its parietes and the contained viscera; and the omentum at other times so much wasted, as to resemble merely a tissue of red vessels. The liver almost always exceeds its natural size, and is also considerably altered in colour and texture. It is always softer than natural; and the system of the vena portæ is always turgid with blood. The peritoneal covering of the liver is often thickened and opaque, and is sometimes studded with white spots, or with flakes of coagulable lymph. Sometimes its surface is irregular, and small indurated portions are discovered on its convexity, which, when cut open, are found to proceed from obstruction of some ramification of its excretory ducts, produced by inflammation of its coats, and favouring the accumulation of viscid bile. The coats of the cyst generally partake of the inflammation. The colour of the bile it contains is various; and it is sometimes so viscid and thick, that it can scarcely be forced out by strong pressure.

A remarkable alteration also takes place in the appearance of the spleen. It does not always, however, exceed the natural size; but its softness is often such, that it can only be compared to a mass of coagulated blood; while, at other times, it has an unusual degree of hardness, with thickening and whiteness of its peritoneal coat.

The stomach is as frequently found contracted and empty, or inflated with air, or distended with variously coloured fluids, and even pure bile. Sometimes inflamed spots are discovered on its peritoneal coat; but the internal surface is the most frequent seat of disease. The texture of the villous coat is often completely destroyed; and it exhibits an uniform red, of the deepest hue, in several places approaching to a livid colour, and is covered with coagulable lymph, or a secretion of puriform matter tinged with blood. In other cases, the inflammation is more limited, and appears in rosy patches over its internal surface, or in numerous minute red specks.

This inflammation is never of the phlegmonous kind, but, like true erythema, successively invades one part after another, frequently creeping along the whole course of the alimentary canal, attended with thickening and pulpiness of its coats.

The brain and its membranes show no uncommon appearances, or marks of previous inflammation.

The lungs are not affected; but I have often found a large quantity of serum, of a yellowish colour, collected in the pericardium, while the heart seemed to have suffered from inflammation; and, in two or three cases, I observed white patches of coagulable lymph, apparently converted into firm glistening membrane, easily separated from its proper coats, on different parts of its external surface.

When this disease appears in a regiment, the utmost vigilance is required on the part of the military, as well as of the medical officers of the corps, to detect it in its early stage; for I know not an instance in which, after the third day, the best directed medical efforts were at all sufficient to arrest its course. I cannot, therefore, in this place, forbear mentioning, that it has been my good fortune to be surgeon to a corps, at all times commanded by an officer, from whose zeal and humane exertions I have ever received the most cordial assistance, whenever it had the misfortune to be visited by serious or epidemic diseases.

Such, indeed, is the rapid progress of the disease, and the great delicacy of the organ principally concerned, that our measures must necessarily be prompt and vigorous; and under whatever varieties it may appear, with respect to type, the local symptoms always require our first attention, and indicate the necessity of copious evacuation of blood. If the fever be of the continued form, under such treatment it very often becomes intermittent; and when of this latter form, we thereby prevent its being changed into a more dangerous type, in the course of its progress.

From the use of this remedy, we are not always to be deterred by the smallness of the pulse; and even if deliquium should come on after the abstraction of a few ounces of blood, the operation may be repeated soon afterwards, without the occurrence of the like accident.

The indiscriminate use of the term *debility*, derived from some of the more general phenomena of disease, without regard to its essence or cause, has led into egregious error in the treatment of this, as well as of some other complaints, which are commonly considered as simple idiopathic fevers. The anxiety, languor, restlessness, and prostration of strength, which accompany this epidemic, are not symptoms of debility, but of gastritis, and depend on the peculiar structure of the organ, and its extensive sympathy with the whole system. A free use of the lancet is required; and, in order that this remedy may be productive of beneficial effects, it must be had recourse to at an early period of the disease. Even when the disease was too far advanced for any permanent advantage to be expected from venesection, its effects have been discovered by a temporary increase of fulness of the pulse. What is here said, applies equally to general and local blood-letting; and this last mode may be employed with considerable advantage.

In the inflammation of all delicate and highly sensible membranes, unless we succeed in the first instance, we in vain attempt to subdue it afterwards, by acting on the arterial system at large, and still farther diminishing the *vis à tergo:* for the disease makes rapid progress; the texture of the organ is speedily destroyed, and its vitality is irrecoverably lost.

Recourse must, therefore, at the same time, be had to such means as possess some controul over the vessels of the part, suitable to its peculiar functions and organization; and the effects of local blood-letting, by the application of a number of leeches to the region of the stomach, are to be further assisted by large and repeated blisters.

Nothing so much aggravates all the symptoms, as the presence of acrid bile, and accumulated feculent matter. All irritation, therefore, from such causes, is to be carefully prevented; and, with this view, the contents of the intestines are to be dislodged on the first approach of the disease, and their accumulation cautiously guarded against during its continuance. For this purpose, small doses of purgative medicines must be frequently administered. It too often happens, however, that the irritability of the stomach is such, that medicines of this class cannot be retained, but are instantly rejected; and recourse, therefore, must also be had to large emollient and laxative glysters, which must be frequently injected, and are, in all stages of the fever, of the most essential service. As a purgative, no medicine is so well adapted to this complaint as the submuriate of mercury; and its operation may be sometimes advantageously alternated with the use of sulphate of magnesia dissolved in water, and plentifully diluted.

The effects of mercury, however, are not to be estimated solely by its purgative quality; but it seems to be chiefly useful, on account of its specific action on the hepatic system, and its power of affecting, through the medium of the circulation, secreting surfaces endowed with high irritability, and in a state of inflammation. This remedy is therefore to be used externally, as well as internally; and is to be resorted to immediately, as the most powerful remedy we possess in the treatment of this disease. Its effects, however, do not always depend on the quantity introduced; but on certain conditions of the system, by which the latter is rendered more or less susceptible of its action, and which I do not pretend to explain.

This susceptibility is indicated by the effects produced on the salivary glands: some degree of ptyalism follows, which affords the surest prognostic of a favourable termination; and the change produced in all the symptoms is generally quick and rapid. It sometimes, however, happens, that the largest doses will not produce salivation; and, in such cases, the event is invariably fatal.

From the rapid manner in which we are frequently induced, on account of the severity of the disease, to introduce this medicine into the system, copious salivation is frequently occasioned, and often appears suddenly, with bleeding from the gums: but, as no advantage is to be expected from the mere secretion from salivary glands, I have succeeded equally well, after having ascertained its influence over the disease, by continuing its use in small doses, merely sufficient to keep up the mercurial irritation in the system, until the disease was completely overcome. From what has been said, it need scarcely be observed, that the practice of besmearing the gums with mercurial ointment, or rubbing them with calomel, for the purpose of encouraging this secretion, is extremely ineffectual.

Sometimes severe diarrhœa comes on during the early stages of recovery, attended with want of sleep; in which case, I have derived the greatest advantage from small doses of opium, combined with calomel. It is, however, to be remembered, that under no other circumstances whatever, is opium to be recommended in this disease.

As far as I have had an opportunity of observing, cold affusion does not appear so well adapted to this species of fever, as to that which prevails during the summer. Indeed, if the external use of cold water can ever be recommended in this fever, it promises to be most successful in those cases which show a more decided tendency to assume the intermittent form, when they happen to be occasionally attended with some degree of determination to the head. Under such circumstances, I have frequently employed it in the manner of cold ablution, during the hot stage, with manifest advantage. From a few trials I have made of the tepid bath, during the second stage of the disease, I am inclined to think it may sometimes be employed with advantage.

The alternation of these remedies has lately been practised and recommended by some physicians; and something of the same kind is also mentioned by Celsus, * from whom, perhaps, the idea has been borrowed. Of such practice, however, I cannot speak from experience.

Attention ought also to be paid to the regular discharge of urine, which is sometimes scanty; and though secreted by the kidneys, is not duly evacuated;—for which purpose, therefore, I have often been obliged to have recourse to the catheter.

We are usually advised, in *all* fevers which show a tendency to intermit, to watch this period carefully; and to avail ourselves of the earliest opportunity such circumstance affords, of exhibiting bark in large doses, with a view to obviate the *debility* which, it is said, predisposes to the formation and return of another paroxysm. That in *some* fevers, and in certain habits and constitutions, this may be highly expedient and advisable, I do not venture to deny, as such practice stands supported by the best authority, and is justified by ample experience.

Without entering, however, into an examination of the above principles, which generally direct its use, I feel myself warranted to affirm, from the result of several cases in which this plan was adopted in *the fever now under consideration*, that bark served only to exasperate the local disease, and to aggravate every symptom of the succeeding paroxysm.

In many cases which occurred towards the final cessation of the epidemic, at the close of the autumnal season, the local symptoms were much milder, and the fever became intermittent, after a moderate evacuation of blood, and a free use of laxative medicines. In those cases, calomel was the medicine I chiefly employed; and I almost invariably observed, that, when carried to an extent sufficient to manifest its action on the system by the usual criterion, the paroxysms soon after ceased to return.

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* Celsus, lib. i. 4. and iv. 2.

When relapses occur, and the strength is at length a good deal exhausted, it becomes necessary to support the patient under the action of the mercury (which must be given in small doses), by a nourishing diet and the use of generous wine. Bark then becomes an useful auxiliary; and warm clothing, gestation on horseback, and change of scene, greatly facilitate the recovery.

XI.

Case of a singular Affection of the Right Leg, which, on extension of the Limb, excited agonizing Headach. By JAMES RUMSEY, M. D. Amersham.

On Sunday, 23d June 1811, I was requested to visit Miss W———, aged 11 years, the daughter of very healthy parents, and one of a remarkably healthy family of children. Her own health had been good until the commencement of her present illness.

Miss W. had been confined about six weeks, by complaints, beginning with slight sore throat, arising apparently from cold. The circumstances which most distressed her, and had particularly excited the apprehensions of her parents, were an acute pain in the head, and in the flexor muscles of the right leg, whensoever that limb was in the least degree extended, even in bed. The extreme pain of the leg, on motion, obliged her to be carried from the bed to the sofa, as she could not stand. The pain in the head returned by fits, at uncertain times, once or twice in every twenty-four hours, in an agonizing degree. At such moments, she desired her servant to compress her head with her hands as firmly as she could. These symptoms were accompanied with fever, loss of appetite, and offensive breath; the tongue moist, and of a yellowish brown; the bowels constipated; stools dark and fetid; the pulse 120, small, and rather hard; the pupils of the eyes much contracted; countenance pale, and dejected. She was weak; but the sensorium had not been in any degree affected; the abdomen was not painful, tense, or tender;

neither was there cough, or evidence of any other visceral affection.

The affection of the leg had subsisted a fortnight; no change was discoverable in it, either to the eye, or the touch; nor did the greatest pressure give pain, so long as no attempt was made to extend the limb.

Miss W. had been attended by two very respectable practitioners, who had given her first an emetic, aperient medicines when the bowels seemed to require them, salines during fever, and the cinchona, with a view to the great debility they observed. The fomentations and embrocations they had employed for the limb had produced no benefit.

From a careful consideration of all the circumstances of the case, I suspected the seat of disease to be in the head; and apprehended that congestion in the vessels of the brain, if not soon relieved, would lead on to the inflammation, and consequent effusion of hydrocephalus internus. The pain of the leg I regarded as a sympathetic affection of the nerves, supplying the muscles so affected; and the fever as symptomatic of the primary disease within the head.

With these views, I proposed the immediate application of six leeches to each temple; to shave and blister the head, and to evacuate the bowels; for which last purpose I directed

℞ Hydrargyr. submuriat. gr. ii.
Pulv. rad. jalapæ gr. x. M. ter die sumendus e quovis vehiculo crasso.

In addition to these means, a very simple regimen was enjoined.

Wednesday, 26th June, I visited Miss W. again. The leeches had been applied on Sunday evening; the wounds continued to bleed until seven o'clock of the following morning; but she had not suffered from faintness. From her extreme aversion to having the head shaved, the application of the blister had been suspended. The powders which she began to take on Sunday evening, procured six stools each day, less fetid, and of a more natural colour.

From the time the leeches were applied, the pain in the head ceased, and the usual returns of fever were much diminished. On the morning of Tuesday, the 25th, Miss W. found, for the first time, the power of extending the leg in bed, and on this day she could walk, although not with the heel quite flat to the ground. The pupils were less contracted; pulse 110; the appetite not improved; but she appeared more cheerful, and felt stronger.

With such evidences of benefit, I advised a repetition of the leeches, and a continuance of the powders, to such an extent as to procure three or four stools every day. The same regimen also to be persevered in.

Monday, July 1, I found Miss W. much improved. She had had no return of the pain in the head, and could walk perfectly well. Her fever had disappeared, the tongue was clean, pulse reduced, appetite better, bowels freely acted upon by the powders.

Although I had the pleasure to consider my patient convalescent, I judged it expedient to guard against any return of the symptoms of congestion, by endeavouring to divert or prevent any morbid action that might reproduce it. I directed, therefore, ʒss. ung. hydrargyr. fort. to be rubbed into the lower extremities at bed-time; the powders to be taken so as to produce a full effect twice in the week; and a blister to be applied between the shoulders, and kept open with the ung. sabinæ. I farther recommended the following draught to be taken three times in the day.

℞ Tinct. digital. purp. gtt. vj.
Aq. ammon. acetat. ʒij.
Tinct. lavend. comp. gtt. xx.
Mist. camph. ℥ss. M.

On the 8th, I found Miss W. improving still in appearance, appetite, and spirits; pulse 90. Directed all the remedies to be continued, increasing the quantity of the ung. hydr. as it had not yet affected the system.

July 15.—Pulse 80; perfectly well in health and spirits; and disposed now to amusements more than she had been for some months past; her mother having observed, long previous to her illness, a disinclination to these, and that she complained often of headach. No effects from the ung. hydrargyr. Moderate exercise, simple diet, and an occasional use of the powders, the only attentions now advised. Miss W. has continued since in the enjoyment of full health.

The remedies, from which the cure of the foregoing case is inferred, are the bleeding and purging. Whether the symptoms enumerated did arise from congestion in the vessels of the head, or from an undue performance of the functions of the bowels simply, is necessarily matter of conjecture. Either of those causes might exist originally independent of the other; but they are known to operate reciprocally in producing and exasperating their respective evils. And the two great remedies, therefore, on which the stress of the treatment was laid, might be highly beneficial, either singly, in reference to their peculiar indications, or by their combined effects in extinguishing the miserable disease which was suspected to be in progress, in its earliest and perhaps its only curable stage. It will be admitted as a strong reason for believing the primary affection to have been within the head, that the pain before felt there ceased immediately upon the application of the leeches, and before the use of any other remedy.

Amersham,
Feb. 13. 1812.

XII.

Case of Poisoning, by the external application of Corrosive Sublimate.

By Archibald Robertson, Surgeon, Royal Navy.

One of his Majesty's cruizers, employed during the present winter on the north coast of Spain, received on board at Corunna, a passenger, whose disastrous fortune had compelled him to seek an asylum in Britain. This unfortunate individual had been exposed to such extreme suffering, that he had become a prey to almost all the diseases attendant upon poverty and filth. The humanity of British officers had not been awanting in endeavouring to lessen these; but it happened, that every article for psora having been expended, separating him from the unaffected was the only medical expedient which could then be adopted, until the arrival of the vessel in England.

The surgeon, however, having occasion to administer medicine to him for another complaint, received the infection, which soon betrayed itself on his hands, wrists, and arms. As they were destined to the port where his wife, children, and relations anxiously looked for his return, after a long and harassing absence, he became extremely desirous of removing the eruption, and therefore had recourse to the small quantity of the muriate of mercury remaining in his possession, forming a solution in alcohol, in the proportion of four or five grains to the ounce, with which, morning and night, he very freely washed the affected parts. By its use, the eruption began to disappear on the 5th day; but on the 7th, he felt himself extremely feverish, having an intense headach, flushed countenance, full and quick pulse, and great heat on the skin. In the course of the night, he was attacked by violent pain in the stomach, attended by vomiting and painful retching, which continued with little interval the whole of the night. In the morning, these were somewhat milder; but the respite was of short duration, being speedily attacked with diarrhœa, attended with tenesmus. At this period the ship arrived in port, on which I took immediate occasion to visit my friend, whom I unexpectedly found in the above distress. His pulse was small, quick, and tremulous; his countenance exhausted and sunk; violent and frequent retching; a constant desire to go to stool, the matter evacuated being scanty, chiefly blood and mucus; but, above all, the debility seemed particularly alarming.

These complaints he had justly attributed to the unguarded application of the solution to the surface of his body, and had therefore taken large doses of opium, repeating them at intervals. As, however, they had only effected a partial relief, and the symptoms were still extremely urgent, I prepared a hot bath for him, with as much speed and in the best manner which the conveniences of a ship could afford. After this I gave him a sudorific; and as soon as the diaphoresis commenced, covered him carefully in warm blankets, without administering any diluents, apprehensive that they might again excite the action of the stomach.

When the sudorific process had been continued for some time, all the symptoms became evidently milder; and, as he was extremely exhausted, I gave him a large dose of opium in substance, which procured him a comfortable and refreshing sleep.

When I saw him on the following morning, he continued in a state of recovery; but the exhaustion was great, and he complained of his breath being extremely fetid, and of a bitter taste in his mouth. The next day his mouth was worse, the gums swollen, and several of his teeth loose; and on the third morning after I first saw him, being the tenth since he had applied the solution, he was in as complete a salivation as ever was produced by the common mode of introducing the medicine into the system, and which ran the same course.

There can be no doubt, that in this instance the same inference is afforded, as in the case related by Dr Anderson. It is evident that the derangement of the stomach was excited by the muriate of mercury having been introduced into the system through the cutaneous lymphatics. The quantity introduced cannot have been very considerable, and it therefore affords an important practical caution. That it would have terminated fatally, had suitable means not been adopted, is likewise an evident deduction. The treatment was the same as in Dr Anderson's patient, with the addition of the sudorific process, which possesses all those high advantages in dysenteric symptoms, adduced in its support by Dr Moseley.

In one of our naval hospitals, where the metallic salt is sometimes given in the more stubborn cases of syphilis, I have observed the ptyalism to be uniformly more severe; that its exhibition is always some time or other attended by severe affection of the bowels; and that the debility is greater and more difficult to overcome, than in those cases in which the other preparations of the mineral are administered.

Deal, 23d February, 1812.

XIII.

Case of Palsy cured by Titillation, with some observations on the effects of Titillation on the Nervous System. By JAMES WARDROP, Esq.

MANY important physiological truths are established by accurate observations on the phenomena of diseases. Physiology also contributes much to the advancement of pathological inquiries. The connexion of these branches of medical science is strikingly illustrated in the various sympathetic affections of our organs, the symptoms of diseases pointing out natural relations between parts, whilst an acquaintance with these natural phenomena accounts for various symptoms in diseases which would otherwise have been inexplicable. A knowledge of the relations and sympathies among the different organs, is of no less importance in therapeutics. If we can discover that certain symptoms in diseases are merely sympathetic, we are led to employ remedies which will act directly on the primary affection. And besides this mode of treating diseases, another of great importance is pointed out, perhaps not less powerful, and of far more extensive application.

It is a fact well established in the practice of medicine, that in many diseases, the most useful remedies, instead of acting directly on the primary affection, produce their influence on some organ or texture in the body, between which, and the part primarily affected, there exists some connexion or consent, whether produced by any direct communication of nervous matter, or by any other law established in the animal economy. Numerous practical illustrations may be mentioned, in which, upon these principles, the use of many of the most valuable remedies can alone be explained. The skin, the alimentary canal, the kidneys, the cellular texture, afford striking examples of the advantages of this channel in the treatment of diseases. In all febrile affections, in local inflammations, in some diseases of the stomach, and other viscera, many powerful remedies are given, with a view to influence the functions of the skin, the stomach, the intestines, and the kidneys. Hence the employment of emetics, of sudorifics, of diuretics, of purgatives, of alterative medicines, and many others.

Keeping such facts in my mind, and aware of the great sympathy which subsists between the skin and nervous system, I have often thought, that in many diseases of that system, a powerful effect might be produced, by tickling those parts of the skin which are possessed of the most susceptibility to that peculiar excitement. The following case affords an excellent illustration, both of the foregoing doctrines, and of their application to the treatment of diseases.

A man twenty-three years of age, in the month of April 1810, when with the army in Portugal, was seized with a fever, which was at that time epidemic among the troops. In consequence of repeated attacks of the disease, he remained for nearly twelve months in the different military hospitals of Coimbra, Lisbon, &c. Besides what he described as the febrile disease, he had a severe affection of his head, for which he was bled profusely; and when he returned to Britain, he had a complete paralytic affection of the left side. By living in the country, he regained a good deal of strength; and he was able to move, though in a very small degree, the paralytic arm and hand. Soon after this, the complaint in his head returned with its former violence; but by copious and repeated bleedings, the giddiness and stupor, which were the chief symptoms, were removed. The paralytic affection of the left side, during this attack, became more complete; and although his general health improved, yet in the beginning of August last, notwithstanding the most rigid antiphlogistic treatment, and a continued use of blisters and electricity to the affected side, the limb continued feeble, and his arm and hand perfectly useless.

When I saw him at this period, which was the middle of August last, eighteen months from the commencement of his illness, he had a marked halt in the left leg, and the left arm hung motionless, not having the power of even producing any sensible movement with any of his fingers. The arm, too, was considerably wasted; the hand œdematous, with occasional pains about his shoulder; his pulse a little full and frequent; his tongue furred, and a tendency to headach. After completely emptying his bowels by aloetic purgatives, and cupping him in the neck, by which treatment all the febrile symptoms, and those of determination of blood to the head, seemed to be removed, I began to try the effect of *titillation.*

The process which was employed to titillate was extremely simple. A person was directed to draw a feather gently over the surface of the skin on the palm of the hand, until it excited laughter; and I purposed that this should be done three or four times a-day.

On trial, it was found that the desired effect could readily be produced. At first, it was found that a considerable time was necessary to excite laughter; but the more frequently the application was employed, the more quickly it was accomplished. He found, too, that the laughter was produced much more speedily when he was tickled by another person, than when he used the feather himself; and that it was most easily excited, by applying the feather to the part of the palm where it is marked by the flexion of the thumb.

The beneficial effects which the titillation produced on the paralytic arm, exceeded my most sanguine expectations.

After employing it a few days, he began to feel as if the limb were reanimated, a sensation which lasted a short time after each fit of laughter. This sensation was soon followed by a power to produce a sensible and voluntary motion of the fingers, which daily increased; so that in about a month from the commencement of the use of the titillation, he could grasp his hand with a moderate firmness, and move, in like manner, the elbow and shoulder-joints. After this period, the strength of the limb was rapidly regained; and in two months from the commencement of this treatment, I met him in the street carrying a bundle under the affected arm.

The titillation was also used to the lower extremity of the affected side, the feather being applied to the sole of the foot, where it failed not to produce a speedy and great degree of laughter.

Besides the titillation, it ought to be mentioned, that I also advised him to rub the limb with the dry hand, morning and evening; and this was done with a view not only of removing the œdematous swelling, but also of producing an additional excitement on the skin. I have seen the patient four months after the above treatment had been employed, when he remained perfectly well. I am aware that the event of any new mode of treatment, in an individual instance, cannot be sufficient to warrant any general conclusion. The case, however, seems to me to afford an interesting illustration of the influence which the functions of the skin have on the nervous system, and to open a channel for observation and experiment, in various diseases of that system, which may lead to important improvements in their treatment. Under that impression, I have ventured to lay these remarks before the public in their present form; and with the hopes that, by their early communication, the good effects of the practice may be established by the ample experience of others.

It may be remarked, before concluding these observations, that a good deal of discrimination must necessarily be employed in selecting cases where titillation is likely to prove beneficial, and in determining the extent in which it may be prudent to employ such a remedy. As long as the paralytic affection seems to depend on an increased quantity of blood in the encephalon, or to arise from any morbid alteration in the structure of the brain, or its coverings, all attempts by titillation, or other means, to recover the power of the paralytic nerves, must be fruitless, if not highly dangerous. Titillation appears to me to be applicable to those cases only where the primary affection is removed, and where the palsy, which was merely one of its symptoms, alone remains. How far titillation may have an effect in alleviating the excruciating pain of *tic douloureux*, sciatica, and some other affections which seem chiefly confined to nerves, experience can alone determine. Titillation, when employed in the treatment of diseases, must, like other powerful remedies, be at first used with caution; and we are enabled to vary the extent of its effects, from tickling to laughter, or even convulsion.

Every one knows, from personal experience, the two first degrees of its effects. There are, I believe, many instances of its having produced convulsions, and I have heard of one case where it proved fatal. In all probability, the effects of titillation, as a remedy, should be confined to the excitement of laughter, which in old or obstinate cases may be excited even to an immoderate degree.

It is, perhaps, difficult to determine how far titillation acts directly on the affected nerves, or indirectly through the medium of the brain; the latter appears to be the most probable opinion; and if this be found to be the case, it may be equally beneficial to titillate the skin of the sound as of the paralytic limb, thus obtaining a more extensive, and a more efficacious mode of applying titillation as a remedy. The influence of mental emotion on the nervous system, and on the vital and animal functions, has not yet met with that consideration in the treatment of diseases which it appears to merit. The effects of music in some of these diseases, and the variations of the same disease in individuals, under the influence of different mental emotions, prove this influence, and might lead us to expect that great beneficial advantages might be derived, from acting on the minds of those afflicted with such complaints.

London, February 1812.

MEDICAL EXTRACTS, No. VIII.

On the Diseases of Iceland. From Sir G. S. MACKENZIE'S Travels.

No apology is necessary for the length of the present extract. The influence of climate, soil, diet, and customs, upon the health of the human species, is at all times an interesting subject of inquiry to the medical philosopher; but in no instance does it promise more marked and useful results than in the present instance. Medical literature abounds with valuable writings on the diseases of warm climates; but they had no counterpart worthy of being contrasted with them, until the present essay, by Dr Holland, who accompanied Sir G. Mackenzie in his expedition to Iceland, was given to the public.

" The poverty of the Icelanders, and the dispersion of their small community over so vast an extent of country, render it almost impossible that medical practitioners should obtain an independent subsistence in the island. To obviate, as far as possible, this evil, a small medical establishment is provided at the public expense; consisting of a superintendant physician, who has the title of landphysicus, an apothecary, and five subordinate medical men, who are stationed in different parts of the island. The physician and apothecary are settled in the vicinity of Reikiavik; where a house, somewhat superior in size and accommodation to the common class of Icelandic habitations, is provided for their reception. Independently of this provision, and the use of some land annexed to the house, the landphysicus has an annual salary of 600 rix-dollars, with the liberty to avail himself of the profits of any practice which his situation may afford. The present possessor of the office is Dr Klog, a native of Iceland, but educated at Copenhagen. Of the country practitioners, one is stationed on the southern coast of the island; another on the eastern coast; a third on the northern; and two in the western province. The reader will readily conceive how entirely destitute of medical assistance many parts of the country must be, when it is mentioned that some of these districts, subject to the care of a single individual, extend nearly 200 miles along the coast, with a breadth varying from ten to thirty miles. We had an opportunity, while in Iceland, of seeing two of the country practitioners; both very respectable men, and well informed in their profession. One of them, Mr Paulson, has already been noticed, as possessing a more extensive knowledge of natural history than any of his countrymen.

"With the exception of three hospitals, in which a few incurable lepers receive gratuitous support, no medical institution exists on the island. These hospitals are maintained at the public expense; and in a method worthy of being noticed from its singularity. On a certain specified day, at that time of the year when the fishery on the coast is most abundant and successful, every fishing-boat in the island is required to contribute one man's share of the capture that has been made. A provision is added to the law, that if the number of fish taken by any boat on this day does not afford a share of five to each fisherman, the contribution to the hospitals shall be delayed, until the next time when the produce of a day's fishing equals or exceeds this amount.

"In speaking of the diseases of Iceland, it will be necessary to allude only to those which furnish any facts peculiar and interesting; or which are more especially connected with the climate and mode of living among the inhabitants.

"The diet of the Icelanders consists almost solely of animal food; of which fish, either fresh or dried, forms by far the largest proportion. During the summer they have milk and butter in considerable abundance; but of bread, and every other vegetable food, there is the utmost scarcity, and, among the lower classes, an almost entire privation. The want of cleanliness in the personal and domestic habits of the people, has been frequently alluded to in the preceding pages. It is an evil incident to their situation; the removal of which could probably only be accomplished by the sacrifice of other habits, still more essential to their comfortable existence. As an effect of these circumstances in the mode of life of the Icelanders, cutaneous diseases, arising from a cachectic state of the body, are exceedingly frequent among them, and appear under some of their worst forms. Scurvy and leprosy are common in the island; occurring especially in the districts of Guldbringè and Snæfell Syssels, and on other parts of the western coast, where the inhabitants depend chiefly upon fishing, and where the pastures are inferior in extent and produce. The scurvy (*kreppusott*), as it appears in Iceland, presents no remarkable peculiarity of symptoms. The disease is observed to occur with greatest frequency at those periods, when there has been a deficiency of food among the inhabitants, or when the snow and frost of the winter succeed immediately to a wet autumnal season. For its cure, a vegetable diet is employed, in as far as the circumstances of the Icelanders will allow of such means. Fruits of every kind are altogether wanting to them; but some advantage is derived from the employment of the cochlearia (officinalis et Danica), of the trefoil (trifolium repens), of the berries and tops of the juniper (juniperus communis), and of the sedum acre; plants which are all indigenous in the island.

"The leprosy of the Icelanders, (*Likthra*, *Holdsveike*, or *Spitelska*), exhibits in many instances all the essential characters of the genuine elephantiasis, or lepra Arabum;* and is a disease of the most formidable and distressing kind. Indolent tumours of the face and limbs are generally among the first symptoms of the complaint, attended by swellings of the salivary, inguinal, and axillary glands. The nostrils, ears, and lips, are progressively affected with swelling and deformity. The skin over the whole, or different parts of the body, becomes thick and hard; sometimes exhibiting a shining or unctuous surface, sometimes one rough and scabrous, which, at a more advanced period of the disease, displays numerous cracks or fissures. The senses are usually much enfeebled; and anæsthesia of the extremities generally occurs. The voice assumes a peculiar hoarseness and nasal tone, frequently with swelling of the tonsils, but without any hindrance of deglutition, until the disease has made great progress in the habit of the patient: the breath and perspired matter are extremely fetid; and the hair and nails frequently fall off. The tumours in different parts of the body gradually pass into malignant ulcers, which discharge an acrid, unhealthy matter. In this state the patient often lingers during a long time; or, where the disease has a more speedy termination, all the symptoms are rapidly aggravated, and he is carried off in a state of extreme debility and wretchedness.†

"When it is considered how frequently unsuccessful the treatment of this disease is in more auspicious regions, it will not excite surprise that in Iceland the attempt at cure should generally be unavailing. Where, from the situation of the patient, medical assistance can be obtained, laxatives, diaphoretics, and issues, or sometimes even venesection, are employed in the earlier stages, or with a prophylactic view. The indigenous plants which the natives employ as remedies, are the juniper, the vaccinium myrtillus, the rhodiola rosea, and the dryas octopetala; the latter of which particularly grows in great abundance on the island. These remedies, however, appear to be of little avail in relieving any of the urgent symptoms of the disease.

"It does not appear that any distinct record exists in Iceland of the first appearance of the leprosy in this country. The Chevalier Bach, in his letter to Dr Van Troil on the subject, thinks it probable that the disease was brought into Iceland from Asia or the south of Europe, at the time of the crusades; in which he asserts that these islanders bore a part with the other nations of Europe.‡ From the ecclesiastical history of Iceland, it appears that the latter statement is not well founded: but though not participating in the holy wars, the Icelanders had at this period an intimate connexion with the European continent; and the disease of which we are speaking, when once introduced, would readily be kept up, partly by its contagious character, principally perhaps by the food and personal habits of the people. In the rest of Europe, it has gradually disappeared, in consequence of the progressive improvement in the modes of living among every class of society.

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* The elephantiasis of Cullen: the elephantiasis legitima of Sauvage.

† The description given by Dr T. Heberden of the elephantiasis occurring in the island of Madeira, accords very exactly with the appearance of the disease as it exists in Iceland. See London Medical Transactions, Vol. I.

‡ See Van Troil's Letters on Iceland.

"The ravages committed by the small-pox in Iceland have been such as to render this disease important even in the political history of the island. Introduced from the continent at different periods, and these in general distant from each other, it has spread rapidly, and under its most virulent form; producing effects almost unexampled in the history of this dreadful disease. The most remarkable instance of this kind occurred in 1707; during which year the mortality amounted, according to the most accurate estimate, to about 16,000 souls; more than a fourth part of the whole population of the country at that period. Several similar instances are recorded in the history of Iceland, though none attended with effects so extensively disastrous. A few years ago, the vaccine matter was introduced into the island from Denmark; but owing to the smallness of the population, and its dispersion over so wide a surface, this was soon lost again; and at the time of our arrival, we found the practice of inoculation entirely suspended. In the contemplation of this circumstance, we had taken out with us a few vaccine crusts, with the design of recommending the method lately proposed by Mr Bryce. Almost immediately on our arrival, we inoculated several children at Reikiavik, and afterwards in other parts of the country; and having a communication with the landphysicus on the subject, we had the satisfaction of knowing, before we returned to Britain, that the vaccine crust had found its way into every part of the island. The adoption of the plan of inoculating from the crust will doubtless secure to the inhabitants a permanent continuance of this blessing.

"The Icelanders have occasionally suffered much from the measles, as well as from the small-pox; the epidemic being attended with inflammatory affections of the chest. In 1797, six hundred people were carried off by this disease.

"Syphilis cannot be said to exist in Iceland. Single cases have sometimes occurred from communication with foreigners; but the disease has always been intercepted before it made any progress in the country.

"Psora is an almost universal complaint in Iceland, appearing indiscriminately among all classes of the inhabitants. No discredit is attached to it, nor does it seem that any means of cure are attempted, though the most efficacious remedy exists in so much abundance in the country.

"Inflammatory visceral affections are very common among the Icelanders. The variable nature of the climate, and the constant exposure to wet and cold which is incurred in the occupation of fishing, give a strong tendency to pulmonary complaints; and out of the annual number of deaths in the island, a very large proportion are referable to this cause. This fact was ascertained from the examination of certain statistical registers, which are annually drawn up by the priests of the several parishes, and transmitted to the Bishop of Reikiavik. In these pulmonary affections, and especially in cases of phthisis, the Lichen Islandicus is much employed by the natives; and possesses a reputation among them, which the experience of its effects in other countries would scarcely seem to warrant. As a demulcent remedy, however, it probably in some degree alleviates the symptoms, and, as an article of diet in such cases, its use may certainly be advantageous.

" Inflammatory affections of the abdominal viscera are likewise very common among the Icelanders; chiefly perhaps in consequence of the peculiar nature of the diet to which they are accustomed. It is possible also that a disposition may be given to these complaints by the treatment of the children in their early infancy. A mother in Iceland seldom suckles her child; but nourishes it, from the time of its birth, with cow's or sheep's milk, which the infant sucks from a piece of moistened rag, or a sponge. Where, from extreme poverty, or other circumstances, milk cannot be obtained, a little fish or flesh meat, rolled up in cloth and linen, and put into the infant's mouth, is the substitute most commonly employed. The diet of the Icelanders likewise gives much disposition to worms; and the ascarides are observed to be particularly frequent.

" The climate and the occupations of the people, particularly that of fishing, render rheumatic affections very common. It is said that gout also occasionally occurs; but it may be doubted whether it is not some modification of rheumatism which obtains this name.

" Hypochondriasis is a frequent complaint among the natives of Iceland; induced probably by the physical circumstances of their situation, and the long confinement to their habitations, which is necessary during the winter season. Yet the general temperament of the Icelanders does not appear to be a melancholic one; and the vivacity of their manner frequently forms a striking contrast to the wretchedness which their external condition displays.

" Besides the diseases which have already been noticed, I had the opportunity, while in Iceland, of seeing cases of epilepsy, hysteria, amenorrhœa, menorrhagia, asthma, icterus, &c. No case of idiopathic fever, either intermittent or continued, occurred to my observation. With respect to intermittents, however, I was informed that they occasionally appear among the inhabitants under a well marked form; an effect no doubt of the vast extent of bogs and marshy ground, which are found even in the most populous districts of the island.

" A singular complaint remains to be noticed, the effects of which, though limited to a small spot, are eminently disastrous as far as they extend. This is the disease, called *ginklofe* by the Icelanders; the tetanus or trismus neonatorum of medical writers; which invades children at a very early age, and almost invariably proves fatal in its event.

It occurs very rarely, if at all, on the mainland of Iceland; but is confined principally to the group of islands, called Westmann-Eyar, situated on the southern coast, of which a description has already been given in the Journal, p. 258. The population of Heimaey, which is the only one of these islands that is inhabited, does not amount at present to 200 souls, and is almost entirely supported by migration from the mainland; scarcely a single instance having been known, during the last twenty years, of a child surviving the period of infancy. During a great part of the year, the island is wholly inaccessible in consequence of storms, currents, and the nature of the coast. The inhabitants are therefore left almost solely to their own resources. Their chief article of food is the sea-fowl, called the Fulmar, which they produce in vast abundance; using the eggs and flesh of the bird, and salting the latter for their winter food. The destructive effect upon the fishery around these islands, by the great volcanic eruptions in 1783, has before been mentioned. Of vegetable food the inhabitants have none, and there are only a few cows and sheep on the island.

" The distressing consequences of this disease led the Danish government to give an official direction to the landphysicus of Iceland, to visit the Westmann Islands, for the purpose of investigating its nature and causes. This gentleman went over to the islands during the summer of 1810, and remained three weeks on the spot. Though he did not himself see a case of the disease, he obtained all the principal facts connected with it from the priests, and those of the inhabitants who had had children. The symptoms of the complaint are briefly these. Very soon after birth, strabismus and rolling of the eyes are observed; subsultus tendinum occurs; and the muscles of the back are often drawn together and stiffened, evidently by incipient spasm. These appearances infallibly denote the approach and event of the disease. Having continued during a period varying from one to seven days after birth, trismus generally comes on, sometimes attended by opisthotonos, which is strictly called the *ginklofe;* occasionally with emprosthotonos, to which the name of *klums* is given by the natives. The trismus present impedes deglutition, and the paroxysms becoming more violent, the infant is speedily carried off. When the rare event of a favourable termination occurs, it is portended by a critical diarrhœa, or by an exanthematous eruption, with the evacuation of the meconium.

" The following table, which includes a period of twenty-five years, shows the mortality consequent upon this disease in the Westmann Islands; and exhibits also the days upon which death has happened.

Children,	1,	3,	14,	16,	22,	75,	16,	18,	10,	2,	1,	1,	5,	1.
Lived days,	2,	3,	4,	5,	6,	7,	8,	9,	10,	11,	12,	13,	14,	21.

" It will be seen from this table, that the number of deaths on the 7th day greatly exceed those on any other; and also that they are more frequent on the 14th day, than on the days immediately preceding or succeeding it. From the proportion which these cases of fatal event bear to the whole population of the island, it is probable that few, if any, instances of recovery have occurred, during the period included in the table. No methods of cure have hitherto been resorted to by the inhabitants.

" This disease is well known to prevail in other parts of the world; and has been particularly described as it appears in the West Indies, and in the island of Minorca.* It exists also in Switzerland, and in some northern districts of Scotland; especially in the island of St Kilda, the inhabitants of which, in their diet and mode of life, much resemble the natives of the Westmann Islands. The exciting causes are involved in much obscurity. It may be presumed, however, that they must vary considerably, when the disease appears in countries so widely different with respect to climate, and the situation of the inhabitants. Its occurrence in the Westmann Islands may reasonably be supposed to have some connexion with the extraordinary diet of the natives; and this is the more probable, as it appears that the complaint has been much more frequent, since their fishery was destroyed by the volcanic eruptions in 1783. Independently of any effect which the peculiarity of the mother's constitution may have upon her offspring, the practice of giving to the infant a strong and oily animal food almost immediately after birth, will necessarily create irritation in the bowels, and dispose to spasmodic affections. Dr Klog, in some remarks he gave me on this subject attributes much to the effects of the sea air, and of a moist atmosphere; but had these causes any considerable influence, we might expect that the disease would be more frequent in different parts of the world, than is actually found to be the case.

" The age which the Icelanders usually attain, presents nothing very remarkable in either extreme. From the table of population, given in a preceding part of this volume, it appears that, in 1801, when the number of inhabitants was 47,207, there were 41 persons between the ages of 90 and 100: 443 between 80 and 90; and 1698 between 70 and 80. The number of females was 25,371; of males, only 21,746. The longevity of the females exceeds considerably that of the males; owing no doubt to their less exposure to the severities of labour, and the hardships of the climate. Of the 41 persons between 90 and 100, 35 were females; of those between 80 and 90, 285 were females; while the number of males was not more than 158. A comparison of facts would probably prove, that the longevity of the Icelanders rather exceeds, than falls short of, the average obtained from the continental nations of Europe.

" The Icelanders are in general of a tall stature; arising, however, rather from the length of the spine, than of the limbs: the head is of the middle size: the countenance open: the complexion exceedingly fair, and, among the women, often very florid. The hair is almost universally of a light colour, and seldom curled. Corpulency is rarely observed among the natives of the island."

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* See the works of Hillary, Chisholm, and Clarke, on the diseases of the West Indies; and Cleghorn's diseases of Minorca.

PART II.

CRITICAL ANALYSIS.

I.

Transactions of the Medical Society of London. Vol. I. Part I. London, 1810. pp. 248.

MEDICAL science is indebted to the Society of Bolt-Court for six volumes of Memoirs. Owing we believe to some unfortunate schism amongst its members, their publication was suspended; but the volume now before us is a proof, that the attention of the society is again directed to the proper object of its institution. To the printed selection of the papers presented to it, the title of *Transactions* is now given; and it is proposed to publish at more regular intervals than heretofore.

The articles in the present part are not very numerous; and it is unnecessary to class them. The first is on *Medical Technology*, from the learned secretary, John Mason Good, Esq. It evinces considerable knowledge of tongues, in exposing the barbarous and incongruous derivations of our medical nomenclature; and contemplates the sources of its impurity and perplexity, under the following heads—

> " First, the intermixture of different tongues that have no family or dialectic union. Secondly, the want of a common principle in the origin or appropriation of terms. Thirdly, the introduction of a variety of useless synonymes, or the adoption of different words by different writers to express the same idea. Fourthly, imprecision in the use of the same terms. Fifthly, an unnecessary coinage of new terms upon a coinage of new systems."

But Mr Good goes further; he has attempted to reform our nomenclature, according to general principles. Those selected by him are—

1. To discard, as much as possible, equivocal terms, or, where this cannot be done, to affix a precise meaning to each, and to use it in that sense only.

2. To create as few new words as possible, and among synonymous terms now in use, to select one, and use it exclusively.

3. To limit our language, as much as possible, to one source, the Greek.

Lastly, To pay a scrupulous attention to the sense in which we employ the affixed, and suffixed particles, which are used in compound terms to express the peculiar quality of the disease, denoted by the theme or radical. Attention to this rule is, in the opinion of Mr Good, absolutely necessary to a due simplicity and precision in our nomenclature; and in conformity with it, but, as we shall see, in direct opposition to his second rule, he suggests the following regulations, upon which his nomenclature is constructed.

> "1. Let the particle *a* (α) express alone the idea of total privation; as in *amentia*, *agalactia*, *amenorrhœa*.
>
> "2. Let *dys* (δυς) express alone the idea of deficiency, as its origin δυνω or δυμι most naturally imports, and as we find it employed to express in *dys-pnœa*, *dys-cinesia*, and *dys-phagia*.
>
> "3. As an opposite to *dys*, let *en* (εν) be employed as an augmentative particle, as we have it in *en-harmonic*, *en-telechia*, and *en-ergetic*. *En* is not often, indeed, a medical compound, nor do I recollect its being employed in more than two instances; *en-cephalòn*, in which it has the sense of *interior* (a word, indeed, that has been long falling into disuse), and *en-uresis*, in which it imports excess, and is consequently used as now recommended. Thus restricted, εν and δυς will have the force of ὑπερ and κατα, but will be far more manageable in the formation of compounds.
>
> "4. Let *agra* (αγρα) be restrained to express the idea of simple morbid affection in an organ, synonymously with the Latin *passio*, or the *berh* of the Arabians.
>
> "5. Let *itis* (ιτις) express alone the idea of inflammatory action, as in *cephalitis*, *gastritis*, *nephritis*.
>
> "6. Let *algia* (αλγια) express alone the idea of pain or ache, to the banishment of such useless synonyms as *odyne* and *copos* or *copus*.
>
> "7. Let *rhagia* (from ῥησσω *rumpo*) be confined to express a preternatural flux of blood.
>
> "8. Let *rhœa* (from ῥεω *fluo*) express a præternatural flux of any other kind."

As a test of the practicability and advantage of these principles, Mr Good has subjoined a table, in which they are applied to the combination of a dozen of radicals with eight particles.

We must confess, that after all that Mr Good has said in favour of his nomenclature, notwithstanding its ingenuity and prepossessing simplicity, it seems to us exposed to insurmountable objections, both general and special. We do not think nosological language can be advantageously reformed upon any general principles, both on account of the number of new terms which must necessarily be created, and of the equally unavoidable connexion of these with hypothesis. The successful introduction of a scientific nomenclature into chemistry, has been quoted as an argument in support of a reform of that of medicine. But, in this respect, these sciences are totally dissimilar. Diseases are not, like objects of chemistry, fixed and determinate in regard to specific characters, but incapable of analysis into essential constituents, and constantly suffering uncertain changes. Hence, in every attempt at a general reform of medical nomenclature, hypothesis has been, and must necessarily be deeply concerned. We might prove this, from the changes proposed by almost every systematic writer; but we shall content ourselves with one of the latest and most arrogant in his pretensions. What then, we would ask, has medical science gained by Pinel's new nomenclature of febrile diseases? Is *Angiostenic* less objectionable than inflammatory; *Meningo-gastric* than bilious; *Adenomeningic* than pituitous; *Adynamic* than putrid; *Ataxic* than malignant; or *Adenonervous* than the plague of the Levant? But the evil is palpable. These innovations have rendered his writings, and those of his followers less intelligible to the rest of the profession. Indeed, every reform obliges us to learn a new language, which can never supersede the necessity of being intimate with those already in use; for the progress of medicine never has been so rapid, that the study even of the earliest authors can be generally dispensed with.

Upon Mr Good's nomenclature we shall only observe, that of the seventy compound terms in his table, no less than fifty-nine are new, and that, upon his principles, the same name is often applicable to very different diseases, and different names are equally applicable to the same diseases. Inflammation, pain, swelling, increased discharge, are not only not incompatible with each other, but commonly are blended in such various proportions that it is impossible to select one as peculiarly characteristic of the disease; and if at one time it should be most prominent, it seldom continues so through the whole progress of the disease. *Otagra*, *otitis*, *otalgia*, and *otirrhœa*, are all at times applicable to Earache. *Anopia* is equally the denomination for cataract, amaurosis, caligo corneæ, and staphyloma, as in all vision is destroyed. *Dysenteria*, to which he has affixed the common meaning of the term, should, in Mr Good's system, designate no specific disease, but denote, without any reference to the cause or concomitant symptoms, every degree of costiveness less than his *Anenteria*, absolute constipation. Again, *enenteria* he gives as a synonyme of diarrhœa, and *enterrhœa* of cholera; but the former should strictly mean an increase of the fecal function, and the latter an increased intestinal discharge, not of blood, and should of course include the former, and many other diseases, even if we were disposed to admit that increased intestinal discharge was the best characteristic of cholera. In the same manner, *Urirrhœa* is improperly restricted to purulent urine, and *Enuria* to involuntary flux of urine: the former should include every preternatural flux from the urinary organs, and the latter should be appropriated to increased flux of urine. But there is no end of special objections. They will suggest themselves to every one who considers the subject: At the same time, many of the observations in this essay will be perused with pleasure.

Art. II. Memoirs of the late *William Hewson*, by Dr Lettsom.

Art. III. History of fatal effects from the accidental use of White Lead, by Mr Deering, with additional remarks by Dr Shearman.

This communication is valuable in many respects. It contains a good description of the acute effects of lead, and shows the importance of an intimate acquaintance with the effects of poisons, and the necessity of overlooking no possible source in our search after them, when suspected.

"On the 21ſt of October laſt, I was deſired to viſit Mrs R., the wife of a reſpectable tradeſman in Alderſgate Street, who complained of violent pain in the ſcrobiculus cordis, with great ſoreneſs of the epigaſtric region when preſſed upon. She had vomited a conſiderable quantity of bilious matter, and at the ſame time her bowels were conſtipated: the pulſe was calm and irregular; the tongue clean and moiſt; and there was no ſymptom of fever preſent. She immediately took a cathartic, which operated, and an opiate in the evening. The following morning, the patient appeared relieved. In the evening, however, the pains and vomiting recurred, and theſe ſymptoms continued for ſome ſucceſſive days, in ſo diſtreſſing a degree, that it was deemed adviſable to conſult the family phyſician, which was done on November 4. 1808. At this time, theſe ſymptoms continued, as already intimated, without any appearance of fever; and hence the phyſician was induced to conſider the affections as of a rheumatic and ſpaſmodic nature.

"In a few days, in conſequence of the amendment of the patient, he diſcontinued his viſits. In about a week after this period, a boy in the ſame family, nearly ſixteen years of age, was ſeized with ſymptoms exactly ſimilar to thoſe of the preceding caſe; and ſimilar remedies afforded only partial relief, till at length he was removed into the country, and thereby recovered his health.

"A week after the attack of this youth, the eldest child, a boy ſix years old, was alſo ſeized with analogous ſymptoms; and, the mother having relapſed into her former ſtate, the phyſician was again conſulted on the 19th of November. At this time, three other perſons in the family laboured under ſimilar affections; and ſuſpicions were now entertained that ſome poiſonous ſubſtance might have cauſed this general indiſpoſition of the family; but after minute inveſtigation, no one circumſtance was diſcovered to confirm this ſuſpicion, or to elucidate the ſource of ſo extenſive a calamity.

"The ſickneſs and pain continued unabated in Mrs R.; but the ſon, after the period of a fortnight, was deemed in a ſtate of convaleſcence by his phyſician, who diſcontinued his attendance: he was, however, ſoon after ſeized with convulſions, and expired within a few hours. Unexpected and ſevere as this ſhock was, Mrs R. afterwards gradually grew a little better. She had hitherto continued to ſuckle her child, which, it being fifteen months old, ſhe was adviſed to wean: to this ſhe reluctantly conſented. In about ten days afterwards, the child became ſomewhat coſtive, without any other apparent indiſpoſition; but at this period it was ſeized with vomiting and convulſions, and ſuddenly expired. The unhappy parent now experienced a return of her complaints; and, under a perſuaſion of the inefficacy of profeſſional aid, ſhe was prevailed upon to conſult an empiric, whoſe attendance, though continued to the end of the year, proved unavailing; and, on the 3d of January, 1809, ſhe had the advice of Mr Chevalier, an experienced ſurgeon, who conſidered the patient's complaint to be chronic rheumatiſm; and by the uſe of clyſters of warm water, oily mucilaginous medicines, fomentations, and veſicatories, ſhe appeared to experience more relief than at any period ſince the firſt attack: But, although the vomiting and ſickneſs were leſs violent and frequent, the pain and ſoreneſs of the abdomen, firſt complained of, never entirely ſubſided: ſhe was, however, able to ſit up and amuſe herſelf with a little needlework, and even to go about the domeſtic concerns of the family; and Mr Chevalier had propoſed to pay his final viſit on the 21ſt. On the morning of this day, ſhe roſe at ten o'clock; and within the ſpace of an hour afterwards, whilſt ſtanding near the deſk of drawers, ſhe ſuddenly exclaimed, "I am dying!" She was ſeized with convulſions, which continued till five o'clock in the afternoon, when ſhe expired.

"On the ſubſequent day, Mr Chevalier, whoſe anatomical ſkill is well known, examined the body by diſſection. Neither the thoracic and abdominal viſcera, nor the brain, upon the moſt minute examination, exhibited the leaſt appearance of diſeaſe; in ſhort, not the leaſt trace could be diſcovered of any morbid affection.

"With reſpect to the three other perſons already mentioned to have been indiſpoſed, the ſervant maid, one of them, was conveyed to her friends, and recovered. A ſiſter-in-law of Mrs R. alſo recovered; but the third, who was her mother-in-law, died, after lingering under diſeaſe till March.

"Theſe circumſtances having been curſorily communicated to the Medical Society, Dr Adams, Dr Hamilton, and Mr Lawrence, were requeſted to viſit the houſe of this unfortunate family, and to endeavour to aſcertain the cauſe of the calamity. Every culinary article, and the whole premiſes, were accurately examined, but without its leading to any diſcovery. It appeared, indeed, that Mr R., the huſband of the deceaſed lady, had purchaſed a caſk of ſugar at a ſale, a conſiderable part of which had been diſpoſed of to ſome friends in the country, who had uſed it without inconvenience; and hence no ſuſpicion was entertained of this article having produced the fatality in Mr R.'s family.

"In this ſtate of uncertainty, Dr Laird, another member of the Medical Society, viſited the houſe; and, on examining the caſk which had contained the ſugar, he obſerved a white powder adhering to its inner ſurface, and which, on being heated by the blow-pipe on charcoal, afforded globules of lead in the metallic ſtate."

In Dr Shearman's remarks he details another instance of the fatal effects of lead, which fell under his own observation, and in which he satisfactorily traced the source to a criminal adulteration of geneva, seized by the excise officers, with sugar of lead, by an officer of the King's revenue, in order to enhance its price a few shillings a gallon, a practice which was carried on to such an extent, that he purchased 28 pounds of sugar of lead at a time. We regret that he has not informed us of the punishment which followed the perpetration of such an act. The symptoms are briefly described in the following paragraph.

"Very many people, chiefly adults, and a greater proportion of them men, complained of occaſional violent colic pains, chiefly occurring after meals, attended with an obſtinate coſtiveneſs; and although theſe ſymptoms were for a time relieved by the uſe of purgatives and other means, they almoſt univerſally recurred. The progreſs of the diſeaſe, even in thoſe caſes where it attained its utmoſt violence, was in almoſt every inſtance ſo inſidious and ſo ſlow, as to leave us unapprehenſive of its true character; which, however, was at length bronght to light."

Art. IV. *History of a Case resembling Hydrophobia from the Bite of a Cat*, by Joshua Dixon, M. D., of Whitehaven.

The remarkable circumstances in this case are, that there was no reason to entertain any suspicion that the cat which inflicted the wound suffered actual madness, and that the symptoms of the disease immediately succeeded, the subject of it (a young lady eighteen years of age) being surprised and alarmed by seeing a concourse of people pursuing a mad dog 74 days afterwards. The body does not appear to have been examined by dissection; but Dr Dixon has added the notes of another case, which he saw treated by Dr Cullen in the clinical ward of Edinburgh, which was dissected.

"From an accurate examination of the body after death, it appeared that the colour of its whole ſurface was remarkably brown, and that of the nails, with ſome parts of the arms, had aſſumed a livid hue. Within the cranium nothing extraordinary could be diſcovered. The choroid plexus was rather paler, and the ſuperficial veins were a little diſtended with blood. The fauces, œſophagus, and parts adjacent, were in a natural ſtate; but the effects of inflammation were apparent in the lungs. In the right auricle of the heart was found a large, ſoft, whitiſh, and looſely adhering polypus; and in the left ventricle a ſmaller ſubſtance, ſimilar to a collection of inſpiſſated blood. The ſtomach contained a little mucus, and two round worms. Several portions of the larger inteſtines were contracted, and their coats a little thickened. The pancreas appeared redder than uſual. All the other parts were perfectly natural.

Art. V. *Reflections on the indiscriminate Use of Mercurial Preparations in Medicine*, by Dr W. Falconer of Bath. For the general animadversions, we must refer to the paper itself. The following fact is worth quoting.

"Inſtances of the ill effects even of the external application of mercury, are ſometimes found in the uſe of what are called quickſilver girdles, which are often worn for the itch, eſpecially by females of the lower rank, as being cleanlier and more free from fetor than a ſulphureous application. Many of theſe caſes have been admitted into the Bath Hoſpital. The general ſymptoms were a degree of general weakneſs approaching to palſy, great pain and tremor in the limbs, and often violent headach. It is worth remarking, that an inſtance lately occurred in the Bath Hoſpital of the symptoms that diſtinguiſh the poiſon of lead, particularly the loſs of tone in the muscles of the wriſts, appearing in conſequence of the uſe of a mercurial ointment for the itch. Something of this kind had been noticed in Sir George Baker's excellent Diſſertations; but it ſeems doubtful if he underſtood that ſuch ſymptoms had taken place from the external application of that mineral. As mercury is well known to pervade the ſkin, it is poſſible it might introduce the poiſon of lead, with which metal it is often adulterated, into the ſyſtem, which, without ſuch a conductor, would not have found its way."

Art. VI. *On the Staphyloma, Hydrophthalmia, and Carcinoma of the Eye.* By James Ware, Esq. F. R. S. A. The title of this communication is sufficient to recommend it to the attentive perusal of the profession. In the first part, Mr Ware objects to Janin's and Richter's method of treating staphyloma, by butter of antimony, and to Scarpa's method of evacuating the contents of the eye, through an opening made by removing a small portion only of the projecting cornea, and describes minutely his own method, by cutting away all the fore part of the eye, including the iris. The advantages of this method are strongly contrasted with the failure of the others, by its having uniformly succeeded in a considerable number of cases, during a practice of more than thirty years.

The next part of this paper is on *hydrophthalmia*, which our author proposes to change to *exophthalmia*, as denoting an enlargement of the whole eye, and not an increase of the aqueous humour in particular. By the way, we may observe, that in Mr Good's nomenclature, this disease would be correctly denominated *enophthalmia*, a term which that technological reformer has given as synonymous with staphyloma. The diagnosis of hydrophthalmia is difficult. It is necessary to ascertain whether there be a morbid enlargement of one particular part only, or of all the different parts of the eye, or the formation of an adventitious body within the eye, or only a protrusion of the eye in consequence of a body behind it. Mr Ware describes the treatment proper in each, illustrated by apposite cases.

The last subject treated of in this excellent essay is *carcinoma* of the eye, a disease peculiar to adults, as *fungus hæmatodes*, which has been so ably illustrated by Mr Wardrop, and on which Mr Ware also makes some valuable remarks, is to young persons. It is consolatory to learn from Mr Ware, that although he has sometimes failed, yet he has several times extirpated carcinomatous eyes with success, and therefore his minute description of the steps of the operation is the more valuable.

Art. VII. *Case of extensive Suppuration of the Liver, with appearances resembling ascites, and which terminated favourably.* By Mr John Burns of Glasgow. In this case, the pus was evacuated by tapping the liver in the usual way, and six pounds were drawn off. The swelling commenced again, but not to half its former size, protruded at the umbilicus, burst, discharged two pounds of pus, and the patient recovered,—an oozing of pus from the aperture gradually ceasing in the course of a fortnight.

Art. VIII. *Observations on the Hare-lip*, by Isaac Rand of Boston, New England. Mr Rand successfully operated on three cases of hare-lip, two in infants only two days old, and one of three months; and he recommends the practice on the following grounds.

" The advantages that accrue from performing this operation at so early a stage of life, are many.

" Children, for some days after birth, seem to be in a torpid state, and in general require but little nourishment.

" They are easily managed, and make no opposition during the operation.

" If there is only a fissure in the lip, and sometimes when there is one in the bones, immediataly after the union of the fissured part of the lip, the child is capable of sucking, by which the chance of surviving the infantile state is increased.

" The disagreeable impression upon the mother's mind, of propagating the deformity in the family by future births, is removed."

The editor observed, that the same practice is recommended, for similar reasons, in the fifth volume of the Memoirs of the Royal Academy of Surgery of France. But we have heard of a case which terminated fatally in consequence of irritation.

Art. IX. *Histories of two extraordinary Cases*, by W. Norris, Esq. Surgeon to the Charterhouse. The first is that of a lady in whom numerous portions of the skull separated, apparently from an increased action of the absorbents. There was no suspicion of syphilis; and the disease seemed to have been the consequence of a fall. An engraving gives an accurate idea of the singular appearance of the skull after death. The second case is of *satyriasmus*, depending on a disease of the prostate gland. Our readers will join with us in praising the propriety and delicacy of recording the circumstances in a learned language.

"Quidam ad me venit, concilium petens, ore macilento, formâ ſqualidâ, facie cadaveroſa, quem in proclivi erat credere, carceris profugum, et jam fame morboque conſumptum, vix diutius vitam ſuſtinere poſſe. Universa corporis ægritudine laborare ſe questus est, ita tamen, ut dolore nullo præcipuo, niſi tardo quodam ſed minime acri circa anum afficeretur, in qua parte, paucis ante menſibus ictum acceperat. Iſte dolor ægrotanti ipſi haudquaquam in cauſa morbi erat; quippe tantum a me interrogatus in ejus mentionem incidit. Affirmavit vero totam ſui corporis invalitudinem, quæ citò vitæ ipſi finem erat impoſitura, *nimio veneris usui* tribuendam eſſe. Subito mihi in mentem venit ſtare coram hominem diſcinctum et impurum, qui intemperantiâ ſuâ morbum in ſe traxerat, ideoque rogavi quamdiu hac libidinoſa cum fœminis conſuetudine deſtiterat. Omnia vero alia—et mihi admirationem haud levem movit ille, qui reſpondit, ſe moribus fuiſſe ſemper caſtis et ſobriis; atque iſto, quem prius memoraverat, et qui indies magis magiſque ingraveſcebat, *furore*, intra duos treſve menſes correptum fuiſſe. Riſum vix tenebam, cum dudum intellexi hominem annum ætatis agere ſexageſimum ſeptimum. Cum tamen in ipſo nihil non fide dignum videbam, narra, inquam, mihi, qualis tibi vitæ fuit ratio. Reſpondit annum circa viceſimum ſextum ætatis ſuæ ſe uxorem primum duxiſſe, ex qua duo ſibi nati ſunt liberi: quâ vero mortuâ alteram ſibi quadrageſimo jam et ſexto ætatis anno nuptam eſſe uxorem, quæ ipſa prius ex altero marito duo liberos pepererat, et jam vidua triginta annos nata eſt. Ex hac porro, inquit ægrotus, duo alteri mihi procreati ſunt liberi: ſed nunquam memini, me in venerem propenſiorem fuiſſe, nedum inſana et inſatiabili libidine permotum, ante hos duos menſes, quando me diro hoc et teterrimo correptum eſſe morbo ſenſi; cujus vis tanta eſt et tam effrænata, ut expleri nequeat; et ad coïtum cum uxore me ſingula nocte, quindecies ſaltem, imo vicies nonnunquam impellat. Hic vero cum ægrotantem meum priapiſmo laborantem ſe fallere augurabar, et fortaſſe nullâ ſeminis jacturâ in venerem ruere, paulo curioſius id ab illo quæſivi. Affirmat autem ſe vix in lecto decumbentem corpus uxoris contingere, cum, tanquam œſtro percitus, in repetitam venerem properat, neque unquam niſi pleno coïtu res peragitur: ſeminis quidem emiſſio potius angere quam voluptate afficere viſa eſt."

Mr Norris prescribed tonic medicines; the tumour increased; was poulticed; was opened, and discharged freely a glutinous sanious fluid, which Mr N. is inclined to think came from the seminal vesicles, and by its irritation produced this strange disease. The patient completely recovered.

Art. X. *On the medicinal properties of Sanguinaria Canadensis, or Blood-Root*, by Dr N. Smith of Hanover, North America.

If experience should confirm the virtues ascribed to this native of Canada, it will prove a valuable addition to our materia, as it is one of the spring ornaments of our gardens, and may be easily cultivated in any quantity. We shall quote what Dr Smith says in favour of it, without any comment.

" The medical virtues of blood-root are very considerable. It is capable of making a very strong impression on the human system. The dried root, pulverized and given in doses of four or five grains, generally pukes pretty violently, producing a great prostration of strength during its operation, which continues for some time. I have not observed it to operate as a cathartic. The taste is acrid and unpleasant. The pulverized root taken into the nose, excites sneezing, and produces a sense of heat in that organ. It also acts as an escharotic on fungous flesh. I have cured several polypi of the soft kind by the continued use of it as a snuff.

" About two years since, I learnt from some source or other that blood-root had been given with success in cases of hæmoptysis; and, having a case of that kind, immediately gave it a trial. The success was beyond my expectation. I soon thought of trying it in cases of cough, and from that time have been almost in the daily habit of prescribing it in such cases. From more than two years' experience in the use of blood-root in affections of the lungs attended with cough, I cannot assert what has been asserted of foxglove, that it will cure a confirmed consumption; but I can in confidence say, that, in my opinion, it is capable of doing more towards preventing that fatal disease than any one remedy I have ever been acquainted with.

" I have given blood-root in powder, in tincture, and in simple infusion; which last is the better mode of giving it. In powder it operates more roughly, and spirit does not appear to extract its active principle sufficiently. When I give it for a cough, if the symptoms are urgent, I begin with a dose sufficient to excite puking; but generally endeavour to give it in as large doses as can be borne without that effect, and repeat it four or five times each day. Where there is great irritation and a constant disposition to cough, I join opium with it. Given in this manner, if the patient has not a confirmed hectic, it generally cures the cough.

" I have also found blood-root useful in cases of inflammatory rheumatism. In that disease I at first give it so as to puke, and then continue it in smaller doses: managed in this way, it is more certain to produce a diaphoresis than any other emetic. Blood-root I understand has been recommended in cases of jaundice in the dissertation above alluded to; and a very respectable physician informed me that he had known it cure epilepsy.

" I have never known blood-root produce any lasting bad effects. It never affects the head like the foxglove, and is on that account a much safer medicine."

Art. XI. Dr Fothergill, late of Bath, now of Philadelphia, relates a case of *Tic douloureux*, which has resisted all medical treatment.

Art. XII. Contains some curious remarks on the land winds of the Coromandel coast, and their causes, by Dr Roxburgh, which, we think, would have been inserted with more propriety in the Transactions of a philosophical than of a medical society.

Art. XIII. Consists of seven cases, illustrating the effects of oil of turpentine in expelling the tape-worm. In five of these it was perfectly successful. In one it failed to cure the disease, but produced no bad effect; and in another, an ounce of the oil, which had been once given in the same dose, with the usual effect of procuring a discharge of worm with little inconvenience, on its second exhibition, produced violent retchings, tenesmus, strangury, and great pain in the back; the urine was also a little tinged with blood.

The last article is devoted to the professional biography of the late Dr Hulme, by Dr Clutterbuck, with the description of a palm truss.

In an appendix, we have a description of a female urinal, and a short notice of the good effects of oil of turpentine in ascarides.

II.

Medico-Chirurgical Transactions, published by the Medical and Chirurgical Society of London. Vol. II. London, 1811.

We are called upon, by the publication of this second volume of Transactions, to devote some portion of our time to the purposes of professional improvement. The wards of the hospitals are shut; the hours of visiting patients are past; the court physician is summoned from his circle, and the anatomical teacher from his class-room. The whole faculty of physic and surgery, in the midst of their business and pursuits, make a pause, and one evening in the week put on the habits of students, to interrogate nature concerning diseases, to confess their difficulties, and to communicate their experience. It is a privilege to be admitted to any part of such meetings, even through the medium of the press. When new facts are recorded, or ancient observations brought forward, they are, if untrue, like Sunday-sermons, forgotten on the Monday; but if true, they are met with and confirmed by others, and ought to be generally known. Sydenham, Boerhaave, and Hunter, would have been less worthy citizens of the world, if, contented with being useful in their day, they had died without enlightening it. An excellent practitioner may serve his country and mankind a whole century, or for ever. A good book, or an original essay, does not die; and the man who writes it, is as useful as if he lived always. Such is the difference between a practitioner, who in his writings tells us something new and useful, and every one who neglects to write at all, or cannot do it; consequently, that is the distinction which good authors merit above those who affect to despise authorship, or who are unequal to the task of undertaking it. From the commencement of our critical functions, we have been bent extremely upon such sort of studies as incline us, if not to do great things ourselves, at least to celebrate those that did; and therefore we have a dislike to dwell upon the faults of a work, in its nature of such utility, as that now before us. It becomes us to "weigh errors in the balance of good-will," and rather to point them out, when we discover them, for amendment, than for censure. And now having said enough for an introduction to this most respectable Society, let us congratulate the members on their prosperity, and transcribe the titles of their essays. The Medical papers are—

"1. A Caſe of Hydrochephalus Internus, by Mr Cook of Brentford. 2. On the Uſe of Oil of Turpentine, by Dr Fenwick of Durham. 3. A Caſe of Secondary Small-Pox, with references to caſes of a ſimilar nature, by Dr Bateman. 4. An Account of a Severe Caſe of Erythema, unconnected with Mercurial Action, by Dr Marcet. 5. On Painful Affections of the Side from Tumid Spleen, by Dr Bree. 6. A Caſe of Recovery from the Effects of Arſenic, with remarks on a new mode of detecting the preſence of this metal, by Dr Roget. 7. On the Mercurial Treatment of Dyſentery, with Obſervations on the ſame practice in Fevers, by Mr Ferguſon, Inſpector General of Hoſpitals. 8. Hiſtory of a Singular Nervous and Paralytic Affection, attended with anomalous morbid ſenſations; written by the patient himſelf, Dr Vieuſſeux, an eminent phyſician at Geneva. 9. Account of a Singular and Fatal Diſeaſe occurring in ſeveral perſons of the ſame hamlet, by Mr Gervis of Aſhburton. 10. A Caſe of Triſmus following a contuſed wound in the Head, by Mr Harkneſs. 11. A Caſe of Triſmus, ſucceſsfully treated, by Mr Parkinſon. 12. Caſe of a woman who voided a large number of worms by the Urethra, with a deſcription of the animals, by Mr Lawrence. 13. Some account of the Effects of Arſenic in counteracting the Poiſon of Serpents, by Mr Ireland, of the 60th regiment of foot."

The papers in the Surgical department are—

1. A Caſe of Aneuriſm by Anaſtomoſis in the Orbit, cured by the

ligature of the common Carotid Artery, by Mr Travers. 3. A Caſe of ununited Fracture of the Thigh, cured by ſawing off the ends of the bone, by Mr Rowlands of Cheſter. 3. A Caſe of Wound of the Heart, by Mr Featherſton. 4. A Caſe of a Sailor, in the muſcles of whoſe back the blade of a knife lodged above thirty years, by Mr Buſh. 5. A Caſe of Fracture of the Occipital Bone, extending to the great foramen, in which that bone was trepanned, and the dura mater of the cerebellum punctured, by Dr Hutchinſon of the Royal Naval Hoſpital at Deal. 6. A Caſe of Lithotomy, with remarks on the effects of that operation, and on ſome caſes of Fiſtulæ in Perinæo, by Mr Chevalier. 7. A Caſe of Amputation at the ſhoulder-joint, drawn up by Dr Cutting. 8. Caſe of Fractured Cranium, when the dura and pia mater were lacerated, and a great quantity of cerebrum protruded, which terminated favourably, by Mr Creagh. 9. Some Obſervations on Spina Bifida, by Mr Aſtley Cooper."

The communications on subjects of Animal Chemistry are original and valuable.

1. Experiment on the Urine diſcharged in Diabetes Mellitus, with remarks on that diſeaſe, by Dr Henry of Mancheſter. 2. Experiments and Obſervations on the Serum of the Blood, by Dr Boſtock. 3. A Chemical account of various dropſical fluids, with remarks concerning the nature of the alkaline matter contained in theſe fluids, and in the ſerum of the blood, by Dr Marcet."

Besides these three classes of papers, there are some other tracts on Morbid Anatomy, which are peculiarly worthy of attention.

"1. A Caſe of Hernia Cerebri, by Mr Burrows. 2. Hiſtory of an extraordinary enlargement of the right lower extremity, with a deſcription of ſome morbid changes in the Papillæ of the Cutis, by Mr Chevalier. 3. A Caſe of premature puberty in a female, communicated in a letter from Dr Wall of Oxford. 4. Caſe of Dyſphagia, produced by Aneuriſm of the Aorta, by Mr Armiger. 5. A Caſe of Hydatid in the Brain, by Mr Morrah. 6. Diſſection of a Limb, on which the operation for poplitæal aneuriſm had been performed, by Mr Aſtley Cooper. Laſtly, Obſervations on Tumours within the Pelvis, occaſioning difficult parturition, by Mr Park of Liverpool."

This paper is the only one upon Midwifery, and it is important, inasmuch as it contains six cases of difficult labour, caused by steatomatous tumours, which are of rare occurrence. Dr Denman never met with an instance of this kind in his own practice; but he communicates an unfortunate case that happened to Dr Hunter, in which, perhaps, the patient's life might have been saved, by removing the tumour by an operation. In the first Number of this Journal, our readers will find two instructive cases of this description, where signal success, by an operation, was obtained in consequence of the knowledge acquired by examining the pelvis of the first case, which terminated fatally. We allude to Dr Drew's valuable communication; and we think it a point well deserving the serious reflection of experienced accoucheurs, to determine, whether, in cases where a tumour is the cause of difficult labour, that tumour should be extirpated; whether it should be punctured; or whether it ought to be left untouched.

In the account of "painful affections of the side from tumid spleen," we are not perfectly satisfied with Dr Bree's reliance on the state of the pulse, (which is said to be slower in such cases than its usual rate), as the diagnostic symptom of the disease; because we observed in some of the soldiers who returned sick from Walcheren, with more marked symptoms of the spleen being affected, than the liver or any other organ, and where no other signs of fever were present, their pulse was preternaturally quick; and because the same frequency of the heart's action was particularly remarked in a case of diseased spleen, which is well described in the second volume of this Journal, (vide p. 409.) The plan of treatment which Dr Bree has found successful, is a combination of aloes with antimonials and neutral salts, administered twice in the day with great perseverance. A variety of other medicines appear to have been prescribed in the case related; and the patient was five months under the physician's care, a period which may make us hesitate before much credit is allotted to the remedies employed, when we consider how much is effected in chronical complaints by time, "the great physician of all human ills."

The narrative of the girl's recovery, after swallowing sixty grains of white arsenic, is very important; and the plan of treatment adopted by Dr Roget, deserves to be universally read.

"We may remark, that the first operation of the arsenic was that of a violent emetic and purgative; and to this circumstance I am inclined to think the patient owed her only chance of safety. The corresponding effects began to take place about an hour after its reception into the stomach, and were promoted by copious dilution, by which I should imagine that nearly the whole of the poison was evacuated. It appears, indeed, from the testimony of a number of authors, that a few grains is in general sufficient to occasion death: had any considerable portion of the sixty grains, therefore, remained longer upon the stomach or intestines, the consequences would have been irretrievably fatal. From the analysis of the fluid vomited at the time I first saw the patient, and of which I shall afterwards give an account, it would appear that none of the arsenic was at that time present in the stomach.

"But the impression which the poison had made upon the coats of the stomach, was not of a nature to subside on the removal of the cause that had produced it. The inflammation excited in that organ, and the symptoms of which, at the time I first saw the patient, were strongly marked, would probably, if left to its natural course, have run through all its stages, and terminated in gangrene. I considered that dilution had been largely employed, and that the evacuations from the stomach and intestines had been abundant. The stomach was in so irritable a state, that no medicine could be exhibited with any prospect of advantage. I concluded that the principal and more immediate source of danger consisted in the inflammation of the stomach; and, viewing the matter in this light, was induced to adopt the treatment proper for idiopathic gastritis. The bleeding was pushed to deliquium; a large blister was applied to the epigastric region, and the bowels kept open by frequent doses of oleum ricini. The employment of these remedies was productive, indeed, of great debility, which, however, was but temporary; the advantages procured were more permanent. These were, the occasional remission of the pain, and the immediate cessation of the vomiting, which never afterwards returned, excepting once in the course of the following night. An effectual check was given to the inflammatory process; and a remission of the symptoms was obtained for about thirty-six hours; during which the system showed a tendency to return to its natural condition."

A train of nervous symptoms, pneumonic inflammation, and epileptic fits, attacked the patient in succession after the primary effects of the poison were counteracted: all of them were judiciously combated: and at length this young woman was freed from any urgent complaint, although her constitution appeared evidently injured by the deleterious influence of the arsenic. The fluid rejected from the stomach was subjected to the usual chemical tests; but it did not give the slightest indication of the presence of the suspected poison. Besides water impregnated with sulphuretted hydrogen gas, and sulphate of copper, another test was suggested by Dr Marcet, which is analogous to that proposed by Mr Hume in the Philosophical Magazine for 1809, and which we have found to be extremely delicate. It is stated by Dr Roget, as being efficient to show the presence of arsenic, when the fluid examined contained only the 250,000dth part of a grain of that substance. It is thus described—

"Let the fluid suspected to contain arsenic, be filtered; let the end of a glass rod, wetted with a solution of pure ammonia, be brought into contact with this fluid; and let a clean rod, similarly wetted with a solution of nitrate of silver, be brought into contact with the mixture. If the minutest quantity of arsenic be present, a precipitate of a bright yellow colour, inclining to orange, will appear at the point of contact, and will readily subside to the bottom of the vessel."—p. 157.

Our late campaigns in Portugal and Spain, have afforded ample scope for ascertaining the efficacy of different methods of treating dysentery. Mr Ferguson's experience of the advantages of the mercurial treatment of this disease is very extensive and convincing. He gives half a grain of calomel, with one grain of ipecacuan, every hour, till the gums become affected, which generally took place in 48 hours, when a solution of the disease might, he says, be looked for with confidence. The diagnostic symptom which indicated the use of mercurial remedies, was the high-coloured, scanty, and pungent state of the urine. By administering mild diluted purgatives to the slighter cases, and boldly mercurializing, even by inunction, which Mr Ferguson thinks the best practice, the severest, the deaths from the disease in the Regimental Hospitals, scarcely exceeded one in two hundred. The remarks on the treatment of remittent fever, appear to us equally sound and judicious. At the beginning of the disease, the remedies ought to be purely and generally antiphlogistic. In the second stage, when congestion in the abdominal viscera has taken place, mercury ought to be boldly employed. It is from a want of discrimination of these circumstances, that we have heard so much for and against the use of mercury in the remittent fever of hot climates, and marshy countries. On the important subject, Venesection, Mr Ferguson has made the following observation, which we urge all our readers engaged in military and naval practice always to bear in mind.

> " The superstitious disuse of the lancet at the beginning of soldiers' diseases, which are then almost always inflammatory, amounting almost to a proscription of the remedy, through the prejudice of the schools, and the false inferences deduced from its effects on the debilitated subjects of private life, has caused more deaths, or at least prevented more lives from being saved, than any other fault in military practice."

Mr Astley Cooper's paper on Spina Bifida, is characterized by the boldness and good sense which it is delightful to see exemplified in the leading men of our profession. He has discovered two modes of treating those who are afflicted with this disease; the one palliative, the other radical.

> " The first consists in treating the case as a hernia, and applying a truss to prevent its descent; and the second in producing adhesion of the sides of the sac, so as to close the opening from the spine, and stop the disease altogether. The first is attended with no risk. The truss forms an artificial vertebra when the natural is defective; a buttress which supports the part, and prevents the increase of the disease. But in this mode of treatment, the truss is required in future life; for if discontinued, the tumour reappears, and will grow, as hernia does, to great magnitude, but with more fatal consequences.
>
> " On the contrary, the adhesive mode of cure exposes the patient to much constitutional irritation, but leaves him without the appre-

hension of the future return of the disease. And a finer and more healthy child cannot be seen than that which was cured by this mode of treatment.

" It may be also observed, that this mode does not prevent the subsequent attempt at the palliative treatment, if the radical should not be successful.

" But as there are many cases of spina bifida which cannot be cured, it is right that I should state what are those which will not admit of relief.

" If the tumour is connected with an unnatural enlargement of the head, hydrocephalus internus is conjoined with spina bifida; and the water will accumulate in the ventricles, if the tumour in the loins is attempted either to be palliated or radically cured.

" If the lower extremities are paralytic, or the feces and urine are discharged involuntarily, there is no hope of relief."

Four cases are related, to illustrate both these modes of treatment. The radical cure consists in puncturing the tumour with a needle as often as the fluid accumulates.

The same gentleman has given an account of the dissection of a limb on which the femoral artery had been tied seven years before, for poplitæal aneurism, a communication which contains many practical and useful facts. The arteries which form the new circulation, are not only enlarged, but they become tortuous; and at the time that the vessel elongates and increases in diameter, its coats also become considerably thicker than natural. In this case, the femoral artery was obliterated by the ligature, and converted into a cord from the origin of the arteria profunda down to the ham. The whole of the poplitæal artery was changed in like manner; and thus the blood was forced to form new channels along the branches of the arteria profunda. A neatly executed plate, conveys an excellent representation of the changes produced in the anastomosing vessels. Another plate shows how the blood may be diverted from its proper channels in all the great arteries of the body, without the life of the animal being destroyed. The carotids, the femoral, the brachial arteries, and even the aorta of a dog were tied and divided: The animal not only survived these experiments, but maintained his usual health, and lived long enough to furnish a most wonderful proof of the power of anastomosing vessels. To the student of physiology, these drawings of such striking preparations will be very valuable; for he could only before look at an imperfect representation of the mode in which the circulation is carried on in the arm, after the principal artery is obliterated, in Mr White's cases of surgery.

III.

A Treatise on the Management of Infants: containing the general principles of their Domestic Treatment; with the History and Method of Cure of some of their most prevalent and formidable Diseases. By John Syers, Surgeon. 8vo. pp. 295. Murray, London. 1812.

There is perhaps no department of medicine, which has been so long and so much incumbered with the errors of ancient pathology, as that which relates to the treatment of children; a circumstance which is, doubtless, to be ascribed to the general influence of *female* practitioners in these matters. For even among the numberless treatises which have been produced by practitioners of the masculine gender upon this subject, but too many observations are to be found, the *anility* of which sufficiently evince the source whence they originated. It must, therefore, be considered as one of the greatest advantages that have resulted from that practice, which, from its alleged indelicacy, has been much opposed, (namely, the employment of male accoucheurs), that the treatment of the diseases of infancy and childhood has been brought more immediately under the direction of persons acquainted with the nature of the animal economy, and with the principles of health and disease, and enabled, therefore, to establish a practice upon rational grounds. As the chief management of children, however, must, according to the ordinance of nature, be consigned to females; so it is desirable that the practical inferences, deduced from such an application of scientific principles, should be communicated to them in the most perspicuous and correct manner. Admitting this, however, so far as relates to the regulation of the clothing, food, sleep, exercise, temperature, &c. of children; we are very far from approving the attempts to teach mothers and nurses to apply the active agents of the materia medica to their tender and irritable frames. In the practice of medicine, above all other arts,

> "A little knowledge is a dangerous thing:"

a fortiori it is particularly dangerous, as it respects the diseases of infancy, in proportion to the more acute susceptibility of impression, which characterizes that early period of life.

For what is the sum of medical knowledge, which those, who have seen little of the varieties of diseases, or have seen them without a previous stock of anatomical, physiological, and physical information, are usually able to acquire? They learn, on the one hand, to associate the use of certain medicines with certain prominent symptoms, in an empirical manner; that is, without referring them either to their seats or causes, or to their different combinations; or, on the other hand, they give a name to certain congeries of symptoms, and prescribe for the *name*, regardless of the different and often opposite conditions of the constitution, under which the disease may appear. How constantly, therefore, do we find such persons pouring in opium and alcohol for the removal of inflammatory *pain*, because they know them to have afforded relief to spasmodic *pain!* How constantly do we observe them stuffing patients in the commencement of *fever* with bark and wine, because they have heard that these are potent remedies for *fever* in its protracted stages? But the rational observer can alone estimate the mischiefs of such half-learned medicine: the empiric deems all his failures the result of unmanageable, not of mismanaged disease.

It is true, that our author is frequently reminding his fair readers, (for to the popular ear he principally addresses his work), that they should not venture upon the exhibition of this active remedy, or that powerful expedient, without the sanction of proper medical advice. But is there any thing rational or prudent in directing people into the midst of difficulties and dangers, and then cautioning them against the extreme hazard of stirring a step farther, until they obtain a well-informed guide?

On the whole, therefore, however appropriately the first part of this treatise, comprehending instructions for the domestic management of infants, is addressed to the attention of mothers and nurses; the second, relating to the history and treatment of some of the most formidable diseases incident to childhood, would have been more correctly communicated to the student, and inexperienced, but well-grounded practitioner.

In truth, what regards the mere domestic management of infants, has always appeared to us to lie within a very narrow compass, and to be easily regulated, not by the dear-bought maxims of wrinkled experience, but by the simple dictates of a little common sense. Insomuch that the only necessity for writing instructions upon the subject has originated from the traditional absurdities which were too long inculcated under the name of experience, and which the light of common sense has scarcely yet been able thoroughly to dispel. Let us attend but to the obvious intimations of nature, and the common principles of conduct as to adult health, and the regulations of infantile regimen are within a nut-shell. We have only to imitate the food, prepared by the glands of the mother, and instinctively preferred by the infant, where the natural supply is deficient; to leave the muscles and the limbs to develop themselves without restraint; to let sleep be enjoyed according to the obvious propensities of the child; to cause all that is sordid and excrementitious be removed by strict attention to cleanliness; to let artificial warmth be supplied, so as to preserve the natural temperature unimpaired, until, by muscular exercise, the child can resist the abstraction of the surrounding cold medium;—and we shall have fulfilled all that is necessary in the physical management of infancy. In enlarging upon these aphorisms, our author, like some of his predecessors, has not altogether avoided trifling and frivolous observations, which partake more of the nurse's gossip, than of the directions of a medical seer. It seems scarcely requisite, for example, after recommending us to place an infant occasionally on a soft carpet, "before it is trained to employ its strength in walking," to give us the farther information, that "at the advance of spring, in summer, and in dry weather, this exuberant activity, which is implanted in children for the wisest purposes, may be encouraged on a grass plot." (p. 49.) Under the same animadversion, we may include the recommendation of the following singular species of *exercise!*

"Crying," says Mr Syers, "is an action, from whatever cause or impulse it may proceed, that operates on the respiratory and digestive organs much in the same manner, though more partially and with greater irregularity, than other species of exercise; therefore it is not always prudent or necessary hastily to repress it." &c. p. 60.

We are sickened with that affectation of sensibility, whatever excellence of description it may have called forth from the pens of Pliny and of Buffon, which compares the lot of the human infant, with that of the whelps of the lion, and the sucklings of swine, only to moan over the superior helplessness and pitiable weakness of the former. Our author has evinced a little of this mawkish taste, in several instances, and especially in the commencement of his work; but, in justice we must observe that he does not altogether overlook the overbalance of advantages, which, in truth, render these moral wailings over the lot of humanity altogether nugatory and absurd.

In Chapter V. Mr Syers has given a description of the various appearances of the alvine evacuations of infants with considerable minuteness, implying a careful and repeated attention to this subject, which, it must be admitted, is of great importance. He has not, however, referred the particular phenomena with sufficient accuracy to specific morbid conditions of the system, to deduce any very precise practical inferences from the enumeration. From the difficulty of conveying distinct notions of colour, odour, &c. in words, the practitioner must generally be the maker of his own experience in such cases; but it must be acknowledged by every one conversant with the diseases of children, that important indications are obtained from the obvious qualities of the intestinal discharges, the variations of which are almost universal concomitants, as causes or as effects, of infantile disease; and the observations of our author on this point, in the sequel, appear to us among the most useful of his remarks.

Mr Syers employs two chapters, in this part of his volume, in stating the properties and doses of "the medicines usually administered to infants," under the general heads of evacuants, stimulants, tonics, astringents, and narcotics. The information contained in these chapters, although such as every practitioner of ordinary attainments must be already possessed of, is, however sufficiently minute and perspicuous, especially in respect to the doses and general indications for the respective articles, to give the ordinary reader as satisfactory an acquaintance with them as mere reading can furnish. But, as we have already observed, this information is of very questionable utility. The same articles are medicinal or poisonous, according to the mode or the circumstances under which they are administered. Nor is it enough that they are given in *harmless* doses; for to give medicines of negative powers, when those of the most active qualities are requisite to meet the disease, (as in the incipient state of croup, enteritis, &c.), is little short of positive destruction to the patient. Perhaps, indeed, this is one of the most fatal results of what has been called domestic medicine: for many diseases, which are most dangerous in their ultimate tendency, can only be known by the eye of experience in the first dawning of the symptoms, when a little well-directed medicine is adequate to the prevention of the subsequent mischief.

We do not understand, by the way, how an *expectorant* is to be serviceable in removing the jaundice of new-born infants. Yet Mr Syers recommends that, if this affection should continue, after two or three doses of calomel and castor-oil have been administered, in severe cases, "a bare half grain of ipecacuanha may be given in a little water as a *stimulant* and *expectorant.*" If ipecacuanha be beneficial in such a case, which we do not question, it is probably by the same property by which it affords relief in the dysentery of adults; i. e. by its mild, but effectual purgative operation.

In commencing the second part of his work, the author justly oppugns the opinion, though in a brief and not very perspicuous manner, that there is great obscurity in the diseases of infants, in consequence of their inability to describe their feelings; and contends, on the contrary, "that we are less in danger of being misled in our opinions of them, than in many of those more incident to adult life." (p. 108.) In this statement, we believe, every one, who has had a moderate share of experience in the treatment of infantile diseases, will readily coincide. The diseases themselves are necessarily less numerous and complicated; because many of the exciting causes of indisposition, which affect the adult, are never applied to the infant. For instance, the influence of moral causes is not exerted upon them; grief, anxiety, and apprehension, do not prey upon them; and many classes of physical causes are altogether withdrawn, such as fatigue, watching, and the pernicious influence of certain trades, manufactories, and occupations; and some others operate to a much less extent, such as intemperance, and the use of deleterious articles of food and drink. The symptoms of infantile diseases, then, must also be less numerous and complicated than those of adult maladies; and our knowledge of them is obtained from a less fallible source than the verbal descriptions, the varying and indescribable sensations, the incorrect observations, and the hypothetical opinions and prejudices of adult patients; namely, from the mere animal expression, if we may so speak, or the instinctive physical signs of suffering, which are unvarying, and therefore scarcely liable to misinterpretation. An infant never cries, but from uneasy sensations; and the seat of those sensations is commonly rendered obvious by concomitant circumstances: as, by the drawing up of the legs, flatulence, and morbid feces, when in the bowels,—by sickness and vomiting, when in the stomach,—by difficult and rapid breathing, cough, and fever, when in the lungs, &c.

The most common seat of disease in infants, however, either primary or secondary, is in the alimentary canal; the regulation of the functions of which, therefore, in most of the complaints of children, becomes a matter of the greatest importance; and this not only in those cases of indisposition, where the derangement commences in that canal; but also in those where it suffers indirectly, or by sympathy, in consequence of primary disease in other organs. The sympathetic affections of the alimentary canal, in cases of painful irritation in the gums, during the progress of a protruding tooth, is generally attended to; but the converse of the observation, or the influence of a disordered state of the alimentary canal, in consequence of the use of improper food, in augmenting the inconveniences of dentition, which our author has pointed out, we are persuaded, with correctness, deserves also careful notice: he attributes much of this inconvenience to the early use of *animal food* after weaning.

"In consulting the bills of mortality in the metropolis, or in any large manufacturing town," Mr Syers observes, "we find that most infants are carried off about the period of life now under contemplation. It is equally notorious that custom has induced mankind to impute this calamity to the circumstance of teething, many children being evidently afflicted by this cause to a considerable degree; but it is extremely frivolous to shelter ourselves under this notion so indiscriminately. A very little observation would convince us, that the evolution of the teeth is not unfrequently protracted by a vitiated state of the alimentary canal, and that few children go through the process so regularly, and with so little indisposition, as those who are supported but sparingly on animal food." p. 164.

This observation, the author affirms, he has deduced from ample experience; and the inference, "that proper regimen at this period affords a prospect of the highest advantage," cannot be refused. He proceeds to describe two varieties of abdominal disease produced by improper food; the one originating from over-feeding, especially with animal food; the other connected with imperfect nourishment, and arising especially where the child has been confined to the breast much beyond the proper period, when the secretion has become too scanty to satisfy the cravings of the child, or no longer containing a proper proportion of nutritive matter. In both these cases, the system is deprived of the necessary supply of aliment; and the symptoms in some measure approximate in both: But the different treatment, which the two varieties of disease obviously require in several respects, renders the distinction important. In describing the former, Mr Syers states that there is

"A tumified state of the abdomen, with a degree of hardness, amounting almost to tympanites, or, as nurses term it, the wind-dropsy; with this symptom it is not unusual to observe great emaciation of the extremities, a pale contracted countenance, with hollowness of the eyes, and a very inanimate look, except when the child is unusually flushed, or under the influence of febrile irritation. The infant often sleeps very imperfectly, and discovers in the progress of this general irritation a propensity to be picking some part of its face; and if it has any eruption about the mouth or alæ of the nose, no unusual concomitant, the child will often disfigure itself in no small degree. The appetite for food is frequently voracious; at other times very uncertain and capricious. The former is more remarkable in an advanced stage of the infant's indisposition. Still, whatever article of food is administered, it conveys but a temporary gratification; or it induces sickness, and soon gives rise to a fresh accession of heat, thirst, and irritation, and to universal derangement of the system."

In the other variety of this disorder, to which alone the author applies the term *marasmus*, is, he says, more alarming, and frequently fatal—

"Where there is not only emaciation, but the skin universally covering the body, especially about the groins and lower extremities, is drawn into folds; this state of general emaciation gives a peculiar withered aspect to the countenance, which is completely wrinkled, and the skin is totally void of its usual elasticity. There are profuse hectic sweats, extreme paleness" (we should rather have said, a dirty or squalid hue) "of every part, from a scanty supply of red blood in the capillary vessels; voracious appetite, but a perpetual state of diarrhœa. In some children, we observe a constant degree of fretfulness and irritation, until at length nature sinks from exhaustion." (p. 168.)

The author is totally silent, however, as to the actual state of disease under any of these circumstances, which he does not appear to have made any attempts to ascertain, by the only means which could elucidate the matter, namely, by dissection. But upon the treatment of these complaints, which is confessedly the most important part of the inquiry, his prescriptions are rational, and such as, we believe, on the whole, are now pretty generally pursued. Under the first set of symptoms, the tumid abdomen, with febrile irritation, and a constipated or irregular state of bowels, he states the necessity of abstaining from the use of animal food, and of beginning a course of mercurial medicine, of which he considers the washed calomel, or grey oxide, as the best preparation. Of this he directs one and a half, or two grains, to be administered every alternate morning, for a week or ten days, so as to produce three or four purgative motions each time; giving, at the same time, different vegetable preparations for diet, such as rice, tapioca, and biscuit powder, with a portion of milk; and interposing some light aromatic and bitter medicine, with a small proportion of magnesia or mild vegetable alkali. He very justly observes, however, that "the salutary effects of any tonic medicine, at this crisis, are far inferior to those of calomel, which does not operate by its purgative virtue simply, but is chiefly found to influence the various secretions of the digestive organs, the action of which has long been deranged by the absurd and erroneous course of diet pursued. It is difficult to advise any limited measure of the mercurial as to the duration of its exhibition, which must solely depend on a variety of circumstances, that will be expected to come under the discrimination of the professional attendant."

In addition to the preceding treatment, the author recommends that "the *hot* bath should be employed twice or thrice a week, beginning with the temperature of 80° or 85°, and rising gradually at each repetition to 95° or 100°; it either imparts an agreeable stimulus to the constitution, or induces an universal and equal degree of relaxation of the surface." (p. 172.) This is a very vague statement. At the temperature of 80° or even 85°, a bath is so far from hot, that it does not merit the appellation of warm; while the effects of the stimulus of heat are very considerably increased between 95° and 100°, the latter of which is truly a hot bath; and as to the effects, an agreeable stimulus and an universal relaxation of the surface, seem to be so little analogous, as scarcely to be indicated at one and the same time, or to be put as alternatives to each other.

For the treatment of the other modification of marasmus, accompanied with hectic fever, and constant diarrhœa, which is more difficult to manage, Mr Syers observes, that

"The same medicine, which was calculated to produce so much relief in the former case, seems here to present several inconveniences; indeed, calomel, in any form at first, seems contra-indicated on account of its tendency to increase the thin watery secretions of the mucous glands of the intestines. We are therefore to palliate the present symptoms; and, after administering a dose or two of rhubarb and calcined magnesia, so as freely to empty the bowels, we may give a pap spoonful of the chalk julap, with a single drop of laudanum, or half a tea-spoonful of syrup of white poppies, two or three times a day, as a slight cordial, and to allay irritation; or administer a simple starch injection. The child's final recovery, however, cannot be accomplished without gradual recourse to mercurials, notwithstanding its hectic disposition and evident debility. Whilst there is a total suspension of the biliary secretion, we can trust to no substitute; and the restitution of the healthy function of the liver is indispensable.

"The gentlest form of exhibiting mercury on this occasion, is to employ a solution of the pilula hydrargyri, or quicksilver pill of the London Dispensatory, in mint water; two grains will be an adequate dose for an infant of fourteen months, or about eight or ten grains of the hydrargyrus cum creta, which may be administered in jam or honey every other night, until some favourable change is effected both in the appearance and odour of the excretions, subject however to the same restrictions and attention as were pointed out in the former case. The mercurial is frequently found to have a more salutary effect, and may be employed with greater security, if we desist from it for an interval of a week or ten days, and then renew the dose according to circumstances: this likewise happens in other instances of exhibiting active medicines. Should it reproduce or increase the diarrhœa, it will be expedient to combine with it a grain of the compound powder of ipecacuanha, or half a drop of laudanum, so as not to counteract the specific action of the mercurial on the digestive organs." (p. 173.)

There is nothing new, indeed, in all this discussion, nor is the matter detailed with particular precision; but it is dwelt upon at a length proportionate to its importance, and on the same account we have quoted it. That derangements of the digestive organs and of the biliary secretions are among the most frequent causes of both the acute and chronic diseases of children, and tend to aggravate both, every practitioner of observation must soon ascertain in the course of his experience. The general fact, indeed, is farther proved by the popular opinion, which ascribes most of those diseases to worms; and by the success of certain quack medicines for expelling those animals, which, in the majority of instances in which they effect a cure, expel no worms. The mistake consists in appealing to a wrong cause; for, as to the seat of the disease, and the nature of the remedy, the opinion and the practice are correct. We are disposed to differ, however, decidedly from the popular practice, of giving violent cathartics indiscriminately, and, in some measure, from that of our author. We have generally found a continued exhibition of small doses of the mercurial (calomel) rubbed together with an absorbent, as soda and testaceous powder, and used once or twice a day, for an indefinite time according to circumstances, effectually correct the alvine excretions and restore health, without any risk of producing hypercatharsis, or severe irritation; and as to salivation with children, observation teaches us that it is so rare an occurrence, that it may be almost put out of consideration.

But there is a farther attention to this principle and practice, which has, for a long time past, forced itself upon our notice, while treating the diseases of children, namely, the necessity of adding it to other measures in the cure of pulmonary and other acute disorders: for, almost invariably, the alvine excretions become speedily deranged, and a new source of disease is superadded, when any feverish state is induced in children. Mr Syers has carried this observation farther than ourselves; but we are satisfied that there is much truth in the following remarks, relative to the acute catarrh of children.

"The principal points which ought to arrest our attention in this disease, are the vitiated secretions from the bowels, and their great irregularity in most instances: as also the real nature of the cough and shortness of breath, which must be distinguished from that of pleurisy by the absence of acute pain, or from real peripneumony, by the slighter quantity of fur upon the tongue, and the less striking symptoms of general inflammation.

"The sleep which children obtain under the influence of this disease is very precarious, and is attended with twitchings and startings; the breath is not constantly laborious, but rather quick and panting, particularly at the time of the evening paroxysm of fever; and there is almost always a rattling noise in the trachea, from the mucus continually secreted, but seldom expelled from the mouth. Although the affection of the breath sometimes rises to an alarming height, and the child is flushed, and often coughs with vehemence, yet, from a series of minute observations directed to the progress of this disease, I am induced to consider the particular state of the digestive organs as the principal source of the irritation, and have almost invariably found the prospect of recovery to brighten in proportion to the return of the healthy functions of the alimentary canal; a circumstance which will clearly be characterized by a more favourable appearance of the feces. Children labouring under catarrh, and this particular affection of the mucous membrane of the lungs, seldom require or will bear the shock of general blood-letting; but the application of leeches to the chest and region of the stomach, where we sometimes discover much fulness and tension, is followed by very beneficial effects. After this evacuation has been freely encouraged by warm fomentation, a blister will be found very useful in relieving the affection of the breath.

"Although the foregoing treatment seems very obviously indicated, yet it is of subordinate efficacy, without a prompt and active exhibition of calomel, with small doses of antimonial powder. It would appear that the lungs are eminently relieved, both with regard to the mucous secretion and oppression of the breath, and the fever mitigated, not only from the common purgative effects of the antimonial combined with the mercurial, which are often copious, but from an evident excitement of the hepatic function, which is plainly indicated by the evacuations." (p. 244.)

We regard the author's direction, however, to afford a sparing allowance of diluent drink, "which would have a tendency to fill the stomach and blood-vessels, and thereby increase the difficulty of the blood's circulating through the lungs," as a piece of mal-practice resulting from a piece of worse theory.

We have extended our quotations upon this point to a length which allow us no room to speak of the remaining parts of this volume; but in general they are of a commonplace character, and require no particular notice. The author introduces hydrocephalus in the chapter of diseases of dentition; an arrangement which we cannot approve: and in treating of the purulent ophthalmia of infants, he takes no notice of the cause to which it has been ascribed, we are disposed to believe with correctness, by Mr Gibson.

The style of this work is somewhat inflated, and often incorrect; and where the author found such words as, to *popularize* (p. 30.), and *disintegrated* (p. 166), we cannot conceive.

IV.

An Inquiry into the nature and cause of the Resp, or that disease which is so destructive among Sheep, especially Lambhogs, on being first put to Cole-keeping; with proposals for publishing by subscription, a Recipe, containing directions effectually to prevent and cure the Resp, and to promote the increased safety of Cole and Turnip-feeding Sheep throughout the year. Peterborough, 1811. pp. 69.

NEXT to the diseases of the human species, those of our domestic animals interest us the most; and as so little of value is written concerning them, we gladly receive every publication from which any information may be extracted. The object of this before us, is to get *five hundred guineas* for communicating to the subscribers a *nostrum* for the prevention and cure of the resp. The nature of the specific is of course not disclosed here, nor are we very anxious to learn it; but this pamphlet contains what to us appears infinitely more valuable, an apparently accurate description of certain diseases to which sheep are liable when fed upon cole or turnips.

The nomenclature of veterinary nosology is still a mere chaos; and accordingly we are here told, that three diseases, if not more, of which sheep die at cole-feeding, go under the general name of *garget*; viz. *garget*, properly so called, the *resp*, and the *blood-striking*.

The first our author considers as a local disease.

"The garget in sheep is a mortification which always appears to originate in the thick, fleshy, or muscular parts of the animal body; and is occasioned (ab externo) by some hurt or injury sustained. It happens more frequently at cole-keeping, only because the animals are in a state of continual plethora. It may be caused by roughly handling; by a sudden fright, and leaping, or running; by an accidental strain, being partly *cast*, and struggling hard to get on their legs; * by napping their wool; and, especially, by *rubbing*, to which they are very much addicted; and at cole keeping, so much so, that the inner bars of the gate which closes the field are always brightened by it. If there be a knot on one of these bars, or a splinter;

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* "This is an accident which must frequently happen unseen of any; though sheep getting *cast* (that is, overthrown by *rubbing on the lair*, and incumbered so much in their wool that they can't get up) will not be readily understood in some parts of the kingdom."

or if any trays, hurdles, or stows, to make an occasional pen, stand so that the sheep can rub their hinder parts against the bars of them endwise, they are the occasion of more danger; and these circumstances ought to be sedulously prevented in fields of cole.

"If a sheep be found in an early period of this disease, and slaughtered, it may be seen where the disease commenced, and how far it has proceeded: just so far the flesh will be black and stinking;" and the other parts "are always found of a healthy and natural colour, clean to the eye, and sometimes eatable. The bowels, in all these cases, are perfectly sound."

"But if the sheep remain longer, and be nearly dead before it be slaughtered, the bowels will be diseased also, as far as the disorder has progressed. Of course, if the disease began behind (which it usually does, because sheep cannot *rub* themselves with so much force in any other direction) they will live longer than if it begin on the shoulder, the origin being farther from the vital parts.

"Lastly, if the sheep be quite dead when found, and if it died in the night and had lain long, the carcase is excessively swollen, putrid, and extremely fetid. A bloody froth is also found at the nostrils; and evident marks, on the ground, of the animal having struggled violently. These are the characteristics of *garget.* But it ought to be further remarked, that the *smell* of garget is peculiar, and always the same, whether the sheep die from a known injury or a probable one; and ewes which die of this disease at yeaning time have the same fetor."—"Fat sheep also are known to die from very slight hurts; and the smell and appearance are always the same as when they die of garget from an unknown cause."

If this view of the disease be correct, our author's inferences are indisputable. No cure is to be attempted; but, the moment the disease is discovered, the sheep, being fat, is to be slaughtered. On the other hand, much may be done in the way of prevention, by removing everything which may cause mischief, and by never penning cole-feeding sheep with a dog.

Blood-striking.—During the middle and latter periods of cole-feeding, very heavy losses are frequently sustained by a disease, concerning which our author is only able to inform us, that, from its symptoms and sudden fatality, he considers it as a sanguineous apoplexy, or *coup de sang,* arising from excessive plethora. In conformity with this opinion, he recommends that all cole-feeding sheep should be bled when they have been a month or thereabouts at the keeping.

Resp is the particular subject of this inquiry, and, though often confounded with the two preceding diseases, it is in no respect whatsoever related to them. It affects sheep, especially young ones, on being first put to keeping that is extremely succulent, or on removing them from poor land and scanty keeping, to a rich and *frannel* pasture, or to clover-eddish; but it is especially dangerous and fatal at cole. It is universally observed, that a few days after putting sheep to cole, they exhibit signs of sickness, and refuse their food for some time, or eat it sparingly; look thin, and betray symptoms of anxiety and restlessness. They fret, pine, and pace round the field, and bleat, till at length *they get it over, and begin to do well.* In this state they are all slightly affected with the *resp.* The symptoms, in its severe degree, are more particularly described in the following passages.

"It may eaſily be diſcovered, whether any of the ſheep are ſeized with this diſeaſe, by driving the flock together frequently during the fourth day. If there be one affected, it will linger behind its fellows. It is easily caught; and on examining the eyes, they will be found to be deeply tinged with a dirty and greeniſh yellow:—if left, they preſently lie down and appear dull and heavy. Shortly after, if a perſon goes to them, they will get up unwillingly, and walk ſlowly away, ſtraining often to ſtale without being able. In another ſhort interval, they muſt be forced, or helped, to riſe; and then they will generally ſtale blood in ſmall quantities, but quickly lie down again, and gather their feet under them; or rather they drop down upon the belly. The ſtupor increaſes, and the head totters; they betray great anxiety, and hang their ears, or draw them backwards; their eyes are ſhut, and the noſe reſts on the ground: Thus they die, without any froth at the noſtrils, and they never ſtruggle at all."

Our author has, in every instance, found the first dead on the morning of the fourth day; and the loss sometimes amounts to fifteen or twenty in the hundred. The appearances on dissection are thus described—

"On driving the ſheep together on the fourth morning, if one amongſt them linger behind its fellows; if it were upon its feet, and not perceived to be ill before the driving commenced; and laſtly, if it take a good run to catch it; let it be inſtantly ſlaughtered, and the whole carcaſe will be found more or leſs yellow. The whole maſs of blood will be found black and thick (grumous), flowing very little after the knife; but all the viscera will be perfectly ſound, excepting only the milt (ſpleen) which will be ſwollen, black, and rotten. From this period, as they ſeldom live four hours; and, when dead, as the whole of the inſide is entirely putrid (though the outſide undergoes no further change), it will eaſily be conceived that the progreſs of the diſeaſe is rapid from one viſcus to another. The liver is next ſeized, and then the kidneys. From the kidneys, the inflammation extends, as if by contact, to the fat which covers them, and from thence to the ſmaller viſcera.

"While the ſpleen only is affected, the bladder is remarkably ſhrunk up (corrugated), and contains not a drop of fluid; but as ſoon as the inflammation proceeds to the kidneys, the bladder (contrarywiſe) becomes extremely relaxed,* and begin to fill with a blackiſh and bloody urine: This is an invariable ſymptom; ſo that this diſeaſe might with exact propriety be called *red water*, if that term had been applied to the urine; but it is reſtricted to red-water found in the cavity of the belly when the ſheep are dead.

"The contents of the stomach are ſuperabundant, and frothy; the feces are deeply coloured, but the bowels are not always coſtive. The diſeaſe is primarily of the other paſſage; and ſeems to take place, because the blood cannot let fall its urinous parts."

In attempting to ascertain the identity of these diseases, with those described in the Transactions of the Highland Society, as common in Scotland, we become fully sensible how defective our knowledge of the subject still is; and, at the same time, we cannot but be struck with the interesting field for observation, which a more accurate investigation of the diseases of domestic animals affords. In the first place, the decided effects of different kinds of food, and of alteration of temperature upon the health of sheep, is worthy of observation, and may serve to illustrate some common diseases of the human body, the origin of which has hitherto escaped our attention; and, in the second place, it enables us to trace the progress of the morbid alterations of structure connected with the disease, and even to detect their very commencement, a circumstance of the greatest importance in discovering the cause, and of which we cannot take advantage in improving our knowledge of human pathology. We recommend the following paragraph to the attention of country practitioners, whose situation enables them to profit by it.

"It has been formerly recommended by a gentleman, eminent in agricultural ſcience, to eſtabliſh a ſufficient number of cattle doctors regularly instructed, by means of a fund raiſed for that purpoſe; and Mr Lawrence has ſince detailed a plan of ſuch a ſociety. But if this ſhould ever be carried into effect, (which there is great reaſon to doubt), the firſt object ſhould be, not to *cure*, but to ſlaughter certain of the diſeaſed animals, and diſſect them. Veterinary medicine has been hitherto content to borrow a few hints of doubtful application, from her elder ſiſter; but if the method here recommended was adopted, ſhe might probably pay back the obligation with intereſt: And if the ſame practice was poſſible with reſpect to the human ſubject, medical ſcience might make more certain advances in one year, than it has hitherto ſince the days of Eſculapius. The difference between ſubjects dying of diſeaſe and thoſe ſlaughtered in the progreſs of it, is material to accurate obſervation."

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* "It is relaxed so much, that it would hold two or three times as much as there is found in it. It is also semi-transparent, and the high colour of the urine may be distinctly perceived through it."

V.

Clinique Chirurgicale, ou Mémoires et Observations de Chirurgie Clinique, et sur d'autres objets relatifs a l'Art de Guerir. Par Ph. Pelletan, Chirurgien Consultant de L. L. MM. JJ. et R., Chevalier, Membre de la Legion d'Honneur, Chirurgien en Chef de l'Hotel Dieu, Professeur de Clinique Chirurgicale, &c. &c. &c. 3 Tomes, 8vo. Paris, 1810.

After glancing our eyes over the title-page of this new work, and examining the preface and table of contents, we sat down, according to the custom of critics, to the task of self-examination,—for we then consider ourselves qualified to discern how much the author has added to our original stock of ideas. The honourable situations which are held by M. Pelletan, point out the sources of extensive experience in surgery; and we are told, that he has been forty years in practice, fifteen of which he has passed as senior surgeon of a large hospital. Time, however, has opposite effects upon opposite characters. Instead of expanding and enlarging this clinical professor's mind, it seems to have shrivelled and contracted his original capacity; and the precepts and example of Morand, Dessault, Sabbatier, and Chopart, have only made him unusually conceited, to speak very often of his own skill, and very contemptuously of his professional brethren. M. Pelletan is evidently below par in his surgical information, especially on the subjects of aneurism and hernia: he is probably esteemed only a second-rate practitioner at Paris, and would certainly rank very low in this country, if a new classification of surgeons were to be made, not according to length of years, but depth of wisdom. In the dearth of Continental publications, however, we are disposed to adopt the tolerating maxim of Pliny, "nullum esse librum tam malum ut non ex aliquâ parte prodesset;" and, bearing this aphorism in mind, we proceed to give an analysis of the principal contents of these three volumes.

The first memoir is on Bronchotomy, in which M. Pelletan speaks from experience of that operation, and of the cases which require its performance; he compares the longitudinal opening made by incision with the transverse wounds of the trachea which are frequently made by suicides. On this subject, the excellent memoirs of Louis in the fourth and fifth volumes of Mem. Acad. de Chirurg. could not be passed over without bestowing a tribute of approbation, in referring to those papers: Our author had only to follow the directions there laid down, and to record his success in so doing, to encourage others to the same bold and judicious practice. Bronchotomy is followed by few inconveniences, and may be performed with the greatest benefit in many cases of threatened suffocation, from foreign bodies being lodged in the windpipe, and perhaps in some cases of croup or angina. M. Pelletan extracted in one child a French-bean, which was lodged in the trachea; in another case, the lower jaw of a mackerel; and in a third, a button, with complete success. An unfortunate case is related of a flint stone slipping into the larynx of a child, which terminated fatally, in consequence of the operation being too long delayed, before the precise cause of the child's sufferings was discovered. The mode of operating adopted, is to divide the trachea between the thyroid cartilage and annular portion of the cricoid, by a bold longitudinal incision. He has found no difficulty in healing the wound of the cartilages, and never saw a case where the opening did not close speedily after the operation; whilst the transverse wounds inflicted by suicides always heal slowly; and, in more than half the cases which occur, are followed by violent hæmorrhage, inflammation, and death. The foreign substance lodged in the trachea or larynx, is generally forced out as soon as an opening is made, though it sometimes sticks, either from its shape or situation, and must then be extracted with the finger or forceps. The voice is not affected by the operation, except when the larynx is divided, in which case it remains hoarse for a considerable time. M. Pelletan has had no experience of the effect of bronchotomy in croup: what he says, therefore, on that subject, is merely speculative. It is difficult to seize the exact period in dangerous cases of croup, when bronchotomy is likely to save the patient's life; for whilst expectoration is free, it is unnecessary; and when suffocation is threatened from the inflammation extending along the bronchiæ, it must be useless. The following case will point out the symptoms indicating the operation, to prevent suffocation, and the speedy relief which it affords.

Obs. 2.—"In the month of May, 1798, a child, three years old, was brought to the Hotel Dieu, who had been playing with some French beans, and in putting them in its mouth one had slipped into the windpipe. The child had coughed incessantly for three days, and sometimes seemed in imminent danger of being suffocated. This time had been spent in giving emetics, introducing instruments into the œsophagus, under pretence of forcing the foreign substance to pass into the stomach, and in inspiring the parents with a dangerous degree of confidence founded on the intervals of repose which the child experienced, but during which it kept making a rattling noise in its throat, a characteristic sign of the complaint. I resolved instantly to perform the operation of bronchotomy. The child was very fat: this circumstance, added to the small diameter of the trachea at this age, rendered the laying bare the anterior part of the canal difficult. However the rings of the trachea were divided; and there was hardly any perceptible interval between the incision, and the expulsion of the foreign substance. The bean had become swelled, and increased in size, from maceration. The child seemed to be restored to life; it spoke freely: a small quantity of blood, which fell into the trachea, produced coughing, which in turn threw the blood out again. This circumstance has the appearance of convulsion, and may alarm persons not accustomed to it; but it is the guarantee of the patient's life, by expelling constantly, and without difficulty, whatever gets into the canal of respiration. After half an hour had elapsed, I brought the edges of the wound together: they were kept in contact by proper bandages; the wound suppurated, and was cured in twenty days. The child's voice did not remain sensibly altered." p. 5.

Aneurism is the subject of several memoirs, both in the first and second volume of these clinical observations. Several cases of internal aneurisms are described, to show how formidable and full of danger these diseases are; and yet that they are susceptible, not only of being relieved, but sometimes of being even cured, by copious and repeated blood-letting from the arm, by the application of leeches, by rigid abstinence, by rest, and by applying ice, and cold and astringent lotions to the enlarged aorta, according to the plan of treatment proposed by Valsalva. Three patients with aneurism of the aorta, were permanently cured by this method; one case was greatly relieved; but the disease returned the following year, in consequence of the patient's return to his former intemperate habits. In another case, the tumour and dilatation was removed from the origin of the aorta, but recurred in another part of that vessel lower down. Those cases which were unsusceptible of cure, are said to have been relieved by the measures pursued, with different degrees of success, in fourteen instances of internal aneurisms; and one case of aneurism of the axillary artery, is mentioned as being cured by this regimen, which M. Pelletan considered a hopeless case, not admitting of any assistance from a surgical operation. The plan of treatment appears very severe, and would probably be reluctantly submitted to by the class of patients who are most subject to aneurism of the aorta. Some of these patients lost nine ounces of blood in a morning, and six ounces in the evening, for several successive days; at the same time they were debarred from taking any thing more than diluting liquids: in this respect, it is worthy of observation to notice to what extent the system of depletion may be carried with impunity, and even with advantage.

We proceed but a few pages in the memoir on poplitæal aneurism, before we find the author commencing an attack upon John Hunter: the masterly suggestion of that eminent surgeon, to tie up the artery in the thigh, to avoid the diseased portion of the artery near the aneurismal sac, is not regarded or understood by M. Pelletan; and he views the applause so justly bestowed on that proposal with a very unfavourable eye. But, although he hesitates not to find fault with, and to reject Hunter's mode of operating, his reproach is entirely unsupported by physiological, practical, or indeed by any other arguments. He contents himself with triumphing in the failure of two cases, erroneously said to have been operated upon after Hunter's method, although the tumor in the ham was most injudiciously opened, and the patients were allowed to die from secondary hæmorrhage, in consequence of the ignorance and prejudice of the French surgeons. Whilst speaking of employing two ligatures, and dividing the artery between them, M. Pelletan does condescend to approve that mode:—this idea, he says, has been attributed to some surgeon or other of the present day, (à je ne sais quel chirurgien de ces derniers temps); but he remembers *Tenon* spoke positively on this point forty years ago, and urged the use of it. Why then was it not practised at the Hotel Dieu by M. Pelletan and his colleagues? The excuse for this omission is poor and inconsistent:—the author appears to have learnt the advantages of employing two ligatures, and dividing the vessel since he performed his clumsy operations; he probably got his information from Maunoir's neat little essay on this very question.

The '*Observations on tumors remarkable for their situation and their nature,*' contain several curious cases; the purport of their history is to enforce the propriety of early extirpation. On syphilis, M. Pelletan holds many heterodoxical opinions, and he has given some extraordinary proofs of them: he thinks the venereal virus may remain latent in the constitution for twenty years; and although the parents be free from secondary symptoms, their children become affected in a way which soon proves fatal, unless preparations of mercury are administered. Solution of corrosive sublimate is the remedy employed by our author upon all occasions, he says, with invariable success:—he gives it only in small doses, and only for a short time. This preparation of mercury is frequently administered at Paris, along with two celebrated quack medicines, *le sirop de Cuisinier* and *le rob de Laffecteur*, which are composed of a decoction of sarsaparilla, white rose leaves, and other vegetables. These extraordinary cases, as they are termed, resemble those pseudo-syphilitic diseases which are not apparently known by the surgeons at Paris to exist, although they have been so ably pointed out by the surgeons of London.

The first volume concludes with a memoir on forensic medicine, or medical jurisprudence, as it is more usually called, in which the author has delivered some good remarks upon several important cases, which were brought before coroners, juries, and magistrates. Having no time now left for for entering upon the discussion of these topics, we shall pass on.

The second volume contains the Professor's observations upon particular aneurisms; and he arrogates to himself the discovery of a new species of this disease, the nature of which he has entirely mistaken, and has placed among those affections of the arteries, to which it does not belong. The case is decidedly one of *Fungus Hæmatodes;* but M. Pelletan insists on its being what he is pleased to designate *an aneurism by erosion,* or *the aneurism of Pott.* It does indeed resemble a case related by Pott as one of the diseases of the limb requiring amputation, but which that able writer confesses himself at a loss how to name, (vide Pott's Works, Vol. III.); and it is like other cases described by Abernethy, Wardrop, Burns, and Hey. The knowledge recently acquired of this disease, does not seem to have enlightened the surgeons at the Hotel Dieu, either by reading or reflection. The first case decribed by our author, is a tumor on the fore-arm, which was opened and healed three successive times, and at length the limb was amputated. Several surgeons attended this patient, and disputed about the nature of the disease, without coming to any clearer notion of it. In the second case (for two are here related circumstantially, and at great length), the tumor was seated in the thigh; it was opened, and then extirpated; and then tubercles and hæmorrhage sprouted out, which led this sagacious operator to tie the the femoral artery in three different places, at three different times, till at last the inevitable consequences were induced, mortification and death. Not the slightest mark of disease could be detected in any of the blood-vessels of the limb; nor had they any communication with the cyst of the tumor; yet this exotic will persist in calling it a new aneurism.

In the memoirs on *ecchymosis, hæmorrhages, physiology, diseases of the heart, amputation,* and *hernia,* we find nothing new, nothing to attract attention. In truth, the last of these subjects has been of late years handled by the first masters of our art; and our treatises display a skill, and labour, and research, which will long be toiled after, with vain emulation, by the panting professors of the present continental schools of surgery. Be it understood, however, that we put in a saving clause for Scarpa's work on Hernia, in five numbers folio, which we have only seen advertised for sale at the publishers of M. Palletan's work, in the Palais-Royal. We shall endeavour to get it, to compare with our own splendid folios.

PART III.

MEDICAL INTELLIGENCE.

Report of Diseases treated at the PUBLIC DISPENSARY, *(near Carey-Street), London, from Nov.* 30, 1811, *to Feb.* 29, 1812.

ACUTE DISEASES.

	No. of Cases.		No. of Cases.
Febris	18	Cholera	2
——— post partum	1	Rubeola	2
Cynanche tonsillaris	1	Scarlatina	1
——— trachealis	1	Roseola	2
Catarrhus	92	Erysipelas	2
Pleuritis	2	Febris infantum	9
Peripneumonia	15	Hydrocephalus	2
——— nothra	1	Apoplexia	1
Pertussis	8	Rheumatismus acutus	7
Peritonitis	2	Arthritis rheumatica	4
Dysenteria	18	Abortio	2

CHRONIC DISEASES.

	No. of Cases.		No. of Cases.
Cephalæa	18	Enterodynia	11
Vertigo	5	Tænia	1
Ophthalmia tarsi	1	Lumbricus	1
Cynanche chron.	4	Tumor abdominis	1
Ptyalismus	1	Marasmus	4
Catarrhus chronicus	70	Nephralgia	2
Hæmoptysis	11	Hysteralgia	3
Phthisis	23	Menorrhagia	8
Asthma	3	Leucorrhœa	6
Dyspnœa organica	1	Amenorrhœa	6
Palpitatio	1	Hæmorrhagia uteri	2
Dyspepsia	20	Enuresis	1
Gastrodynia	13	Asthenia	12
Pyrosis	3	Chlorosis	1
Hæmatemesis	1	Chorea	1
Icterus	3	Timor hydrophobiæ	1
Hepatalgia	4	——— Insania	1
Diarrhœa	9	Paralysis	2

CHRONIC DISEASES *continued.*

	No. of Cases.		No. of Cases.
Hysteria	4	Scrofula	4
Rheumat. chron.	17	Lichen	2
Hemicrania rheumat.	1	Prurigo	4
Pleurodyne	1	Psoriasis	4
Lumbago	1	Erythema tuberosum	1
Phlegmatia dolens	2	Urticaria	1
Anasarca	1	Herpes	1
Ascites	2	Rupia	1
Hydrothorax	2	Impetigo	1
Hydrops tot. corporis	3	Porrigo	10
——— ovarii	1	Scabies	14

The winter has been, on the whole, mild, but variable. During the first three weeks of December, the thermometer was sometimes above 50°, and seldom below 40°, with the wind varying between NW. and SW. and frequent light rains. At Christmas there was a fall of snow, which lay two days, and it continued frosty for a week. The month of January was generally cloudy and foggy: some snow fell on the 4th and 5th, and a heavy fall occurred on the 7th. On the 10th, so dense a fog hung over the metropolis the greater part of the day, that, even in the open streets and squares, it was necessary to use candles. Some clear mild days occurred about the middle of this month, which were followed by a few days of slight frost. In February the rains have been frequent, and sometimes very heavy, and accompanied with gales of wind from the SW.

The list of diseases affords very little occasion for remark. During the whole of the three months, the number of catarrhal affections has been considerable, and nearly uniform; but no other tribe of diseases, on which the season of the year had any influence, has presented itself. There has been no epidemic; the contagions appear to have been nearly dormant; and typhoid fevers have been equally rare. The febrile diseases, included under the first article in the list, have been moderate and short in their duration, and have terminated well; the sensorium having seldom been observed to be affected, nor the heat of the skin to be much augmented. A brief administration of diaphoretics and purgatives, with an antiphlogistic diet, has appeared to comprise all the requisite treatment.

The two cases, set down under the head of Roseola, were febrile diseases, and one of them was of considerable severity and duration. In both these instances the rash appeared on the second day of fever, and continued beyond the ninth day, the fever then declining with it. In the more severe case, the rash bore a considerable resemblance to that of rubeola, consisting of numerous small, slightly elevated spots, of a pale red colour, not acuminated, covering the face, extremities, and trunk; but, although here and there confluent, not forming into crescents, like the measles, nor approaching to the raspberry hue. The patient complained during the whole period of great general distress; the skin was exceedingly hot, although the perspirations were considerable, and there was even a tendency to delirium. On the 9th day the eruption began to disappear, and the fever to diminish; but she was left in a state of great debility and languor, and recovered slowly. Purgatives, diaphoretics, and acids were principally employed; but it is probable that a cooler bed and apartment, than the parents of the girl chose to maintain, would have materially alleviated the complaint. The second patient, a younger girl, only eleven years of age, exhibited on the second day of a moderate fever, accompanied by sickness, a diffuse rose-red rash on the legs, of an erythematous form, slightly elevated, but of an uneven surface, the most elevated parts being reddest: on the fourth and fifth days (the fever, with slight headach continuing), a similar rash appeared on the arms; and on the sixth day, when the eruption on the legs began to fade, a large circular patch of the same bright red rash, showed itself upon each cheek. These patches were extremely vivid, when the patient was first seen on the seventh day, at which time the eruption on the arms was less bright, and that on the legs was much faded, the elevated parts only remaining red, and giving a mottled appearance to the skin. Some remains of the rash continued on the face on the eleventh day, when she visited the Dispensary, free from fever; and a slight roughness from imperfect desquamation, was found on the arms. She had taken some laxative, before she applied to the charity, and was treated with infusum rosæ and magnesiæ sulphas, followed by the decoction of cinchona and sulphuric acid.

These febrile rashes, of which there is a considerable variety,* are not often either dangerous or severe, and chiefly deserve to be noticed with a view to the diagnosis from the contagious eruptive fevers, scarlatina and measles. I lately attended a case, resembling the former of these in appearance, although not in the severity of the concomitant fever, which excited a great alarm in the family, from the belief that it was scarlet fever; a supposition which was strengthened by the occurrence of a slight sore throat. But a careful attention to the form, distribution, and progress of the eruption, as well as to the concomitant circumstances, will generally enable an observer, accustomed to analyze those appearances, to decide promptly as to their difference from the contagious fevers just mentioned. The causes of them are by no means easily traced: in the latter of the two cases above described, the disorder was supposed to have been occasioned by having been excessively heated, by working at a mangle, a week before the symptoms appeared.

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* Neither of these cases accorded accurately with the species of roseola, described by Dr Willan, as having most frequently occurred to his observation. But it were not easy to follow these rashes through all their varieties. They agreed with his general definition: "a rose-coloured efflorescence, variously figured, without wheals or papulæ, and not contagious."—Ord. III. Genus VI.

The case entered under the title of timor hydrophobiæ occurred in an elderly woman, who had been bitten in the hand by a dog, which she was apprehensive was rabid. She exhibited a most extraordinary degree of mental agitation, and much irritability both of body and mind, which we endeavoured to pacify by the pretence of prescribing a certain preventive; but without effect. She returned to the Dispensary, however, in the course of three days, perfectly free from inquietude, in consequence of the wound having already healed, which, she conceived, was a proof that no poison had been inserted with the dog's tooth.

Bedford Row, Feb. 29. T. B.

AMONG the numerous testimonies of national esteem and gratitude, which have been transmitted to Dr Jenner on account of his invaluable discovery, the following, which we think has never been laid before the public, is not the least interesting. His treatise on vaccination was delivered to the council of the Five Nations, by Mr Claus, with the following address; and, in return, the council presented him with the letter which follows, accompanied by the Wampum Belt, the usual token of friendship with this people, which are now in Dr Jenner's possession. Our readers will probably not deem any apology necessary for introducing these documents to their notice.

Speech of William Claus, Esq. Deputy Superintendant-General of Indian Affairs, to the Five Nations, assembled in council at Fort George in Upper Canada, 8th November 1807.

Brothers of the Five Nations,—Early in May last, His Excellency Lieutenant Governor Gore took every possible means to introduce the vaccine inoculation among your tribes; but owing to your people being then out on their hunt, it did not take place.

When on public business here about a month after, I spoke to you again, and strongly recommended to your serious consideration, the introducing among your people this valuable discovery, the want of which you soon afterwards felt very severely in the loss of one of your chiefs, Oughguaghga John.

Brothers,—I have now the great satisfaction to deliver you a book sent to you from England by that great man Dr Jenner, whom God enabled to discover so great a blessing to mankind. It explains fully all the advantages derived from so great a discovery.

I, therefore, Brothers, at his request, and in his name, present this book to the Five Nations, as a token of his regard for you and your rising generation, by which many valuable lives may be preserved from that most dreadful pestilence the small-pox.

A true copy. (Signed) WM. CLAUS, D. S. G. I. A.

Speech of the Five Nations assembled in council at Fort George in Upper Canada, to Dr Jenner, London, on the 8th of November 1807.

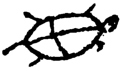
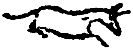
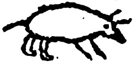
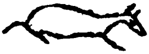
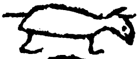
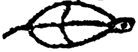
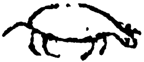
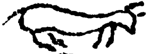
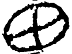
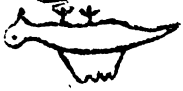
Present,

Lieut. Col. Proctor, 41st regt. commanding the garrison,
Wm. Claus, Esq. dept. superintendant-general, Indian affairs,
Lieut. Saunders, 41st regt. Lieut. Fowler, 41st regt.
Ensign Bullock. do. W. J. Chew, storekeeper, Ind. dept.
David Price, } Interpreters.
Benjamin Fairchild, }

Brother,—Our father has delivered to us the book you sent to instruct us how to use the discovery which the Great Spirit made to you, whereby the small-pox, that fatal enemy of our tribes, may be driven from the earth. We have deposited your book in the hands of the man of skill, whom our great father employs to attend us when sick or wounded.

We shall not fail to teach our children to speak the name of Jenner, and to thank the Great Spirit for bestowing upon him so much wisdom and so much benevolence.

We send with this a Belt and String of Wampum, in token of our acceptance of your precious gift; and we beseech the Great Spirit to take care of you in this world and in the Land of Spirits,

Chiefs' Names.	Tribes' Signatures.	Interpretation of the Names.	Nations.
Dewadtharanegea,		Two pointed arrows.	Mohawks.
Dekayonwagegh,		Two Wampum belts.	
Aigowane,		Clear sky,	Onondagas.
Auneai,		Feather on his head,	
Cosscouete,		Moving a tree with brush and planting it,	Senecas.
Onindaki,		Town destroyer,	
Caugheaw,		Raven,	Oneidas.
Ussweghtagehte,		Belt carrier,	
Sawesyewathaw,		Disturber of Sleep,	Cayougas.
Eajawgehete,		Fish carrier,	

An account of a particular species of Counter-Fracture, by Professor Thomson.

At a late meeting of the Chirurgical Society of Edinburgh, Professor Thomson gave an account of a particular species of counter-fracture, which he had repeatedly had occasion to observe in the examination of the crania of persons dying in consequence of injuries of the head. This is a variety of counter-fracture, which seems to be more frequent in its occurrence, and more determinate in its position than any of those hitherto described by practical authors. It occurs in the basis of the cranium, and runs along that portion of the temporal bone, which forms the roof of the cavity of the tympanum, and of the meatus auditorius externus. In some instances, it exists on one side only of the head; in others it occurs in both; sometimes with, and at other times without a fracture of the sphenoid or occipital bones. The Professor illustrated his account of this species of injury by the detailed history of fourteen cases, with dissections taken partly from his own practice, but chiefly from the Journals of the Royal Infirmary.

The following are some of the more general results which he deduced from the particular histories of the cases he related.

1*st*, That fracture at the basis of the cranium, is an exceedingly common occurrence from external violence applied to the posterior, upper, and lateral parts of the head.

2*d*, That this fracture usually runs across the basis of the cranium, from temple to temple, in that portion of the temporal bone, which forms the roof of the cavity of the tympanum, and meatus auditorius externus, where the bone seems to be thinner and weaker than in any other part of the basis of the cranium.

3*d*, That this variety of counter-fracture is usually, from the first, accompanied by hæmorrhage from one or both ears, by a greater or less degree of stupor, and in general also by a diminished frequency of the pulse.

4*th*, That the greatest number of adults affected in this manner by external violence, die of the injury which they have received, some after a period of one, two, or three days, and others not till after a longer interval.

5*th*, That in three of the cases of this species of injury which have come under the notice of the observer, a portion of the brain was discharged along with the blood from the ear, soon after receiving the injury.

6*th*, That in all of the fourteen cases related, of death succeeding to injuries of the head, followed immediately by bleeding from one or both ears, the membrana tympani has been found lacerated, and the bone covering the external and internal cavity of the ear fractured.

7*th*, That the dura mater has always been found separated more or less in the line of this fracture, in some instances lacerated, and in others blood extravasated between it and the bone.

8*th*, That those portions of the middle lobes of the brain which lie over the usual course of this fracture, are found to exhibit different marks of injury, such as ecchymosis, softness of texture, loss of substance, and, in those who survive the injury for a day or two, sometimes very evident marks of suppuration.

Some Account of the German Universities.

The old, and once celebrated universities of Germany, are tumbling into pieces like the political institutions of the continent of Europe. Within these last two years, accounts have reached us, of the universities of Helmstadt, Altdorf and Rinteln having expired, and many others are fast approaching towards the same fate. Grieswald and Erfurt are nearly deserted; and

Halle seems likely to be eclipsed by the splendid endowments of the newly arranged university at Berlin. The king of Prussia, "tired of war's alarms," has devoted his attention to the revival of learning, and the arts and sciences, in his capital. He has given a royal palace, for the purpose of forming spacious class-rooms for lectures; and he has established galleries for works of arts, and museums of natural history. Professors and superintendants have been invited from the neighbouring universities; and medicine, like a wax nose, is to be moulded and fashioned into some new form, to attract the homage of students to the banks of the Spree. Reil has been induced to quit Halle for an appointment and salary adequate to his merit:—he presides over the medical department, and was to commence his lectures this present winter. Hufeland, who has been resident at Berlin for several years, is also to deliver lectures on some branch of medicine and physiology. Bernstein is to teach surgery, Hermbstaedt chemistry, Willdenow botany, and Rudolph comparative anatomy and zoology. Professor Weiss, from Leipsic, is appointed superintendant of the mineral cabinet, and to lecture on mineralogy. Gottingen continues to flourish, we are told, under the auspices of King Jerome; and *Halle* is said to have experienced the patronage of his new Majesty and his ministers in a very distinguished manner. This last piece of intelligence interests us as Britons, watching over any attack upon public liberty, and as men of science, who recollect with pleasure their former acquaintance with the members of that once free and celebrated university. Halle has long been distinguished for its eminent professors in the departments of medicine. Stahl, Hoffman, and Gren, contributed much to raise its reputation, which has of late years been well supported by the talents of Reil, Loder, Sprengel, Gilbert, and others. We hope her star will not be eclipsed, by being forced into another sphere of motion. Whilst Halle remained under the government of Prussia, she enjoyed all the privileges of independence, by being left alone; the exertions of the professors were not damped by ample salaries; and the pursuits and opinions of the students were not checked by arbitrary regulations. In 1802, the total number of students at Halle, was estimated at 634; in 1805, the medical students amounted to 100, the students of theology to 200; but the most numerous class studied law, which comprehended the sons of noblemen and rich merchants, as well as lawyers, who were sent there for general education. There were no medical societies at which the young men met at stated times, consequently not much emulation or spirit of inquiry among them, though every new system of philosophy had its advocates and partizans. The examinations for conferring degrees, are not limited to any particular time of the year; each student undergoes his examination for a degree whenever he demands it; he only submits to one trial, which lasts two or three hours, and is attended by all the medical faculty. Four years is the usual period of study, before any application is made for a degree. The candidate defends a Latin thesis publickly, but this is generally written by one of the professors, and is merely *pro formâ*. The session for lectures, both in winter and summer, is like that adopted in our Scotish Universities. There was no public hospital attached to the university seven years ago; the infirmary which belonged to the town, for the reception of sick poor, only contained twelve beds. The clinical establishment was founded upon a *nosocomium ambulatorium*, a species of dispensary, where patients were admitted and visited at their own houses. Cases were entrusted to the care of senior students, who drew up the history of the disease and the daily reports, which were submitted to the clinical professor; and he superintended the treatment, and occasionally visited the patient. In this respect, Berlin is better qualified for a school of medicine than Halle; for it has a large hospital, and good clinical wards.

Loder's museum, and his lecture-room, are under the same roof with his dwelling-house. He lectures on anatomy, physiology, and surgery; and practises as physician, surgeon and accoucheur. His anatomical preparations are arranged in exquisitely neat order, in several rooms, according to the structure of hard and soft parts of animal bodies. They are very numerous, and many of the injected preparations singularly happy and beautiful. Many rare and important morbid preparations, from which drawings were made for publication, ought ere this time to have been made known to pathologists in this country, if the unfortunate state of public affairs had not stopped our peaceful communication with Hamburgh and Leipsic. There is another extensive collection of anatomical preparations at Halle, which was begun at Berlin by Meckel the first, and has been increased by the labours of his son and grandson. It occupies three large rooms, and is particularly rich in diseased specimens, which probably the present Professor Meckel will describe in the Journal of Morbid Anatomy that he announced two years ago.

Lectures on chemistry and natural philosophy, are given by Gilbert, the learned editor of *Annalen de Physik*. His laboratory is well furnished with chemical apparatus; he has models and instruments of all kinds, many of them costly, and all of them purchased and collected by his own industry. It is to be hoped, after so many years labour, that it will not be deprived of that reward, which is justly due to his indefatigable exertions in his favourite study of chemistry, or want that best and most flattering encouragement which a numerous class of pupils can give to his zeal and ingenuity.

The public library is upon a large scale; the building is handsome, situated on an eminence, somewhat inconveniently, at one end of the town, with trees planted around it, and a row of busts of celebrated men in front. It contains a multitude of books; but complaints were made by the curators, of the difficulty in procuring English scientific works, they are so dear, and so rarely exported; and no less difficulty attends the getting books from Italy: But, in spite of these obstacles, the professors are acquainted, through the means of their reviews and periodical works, with every book that is published in the different nations of the world.

The botanical garden is a small one, but it is scientifically laid out by Sprengel, who lectures with great applause on botany. In our frequent visits to the professors, whose politeness and attention could not be exceeded, we frequently heard the praises of our country, not vaguely, but discriminately marked. The discovery of vaccination was more than once mentioned as the most glorious work of any age; and they could not help envying England the honour of having *Jenner* for her son and subject.

Perhaps there have been too many universities in Germany, and it may be serviceable to collect and concentrate the talent of the different states; but we fear the scourge of war will destroy many of the good with the bad; and though the privileged universities may be better supplied, being fewer in number, with the means of affording a scientific education, yet the destruction of so many seminaries, where the lectures, as well as the means of living, were cheap, may cut off many *routineers* from the practice of medicine, whose situation in society is very important, and whose condition has been in Germany of late years so much improved.

February 13*th*, 1812.

Observations on the Connexion between Imperfection in the several Functions in one Sex, with certain Approximation in form to the other.

There is a peculiarity of the female of the human species, which has not, as far as I know, been particularly noticed, viz. that some women having more hair upon their faces than others (approaching to the beard in men), never bear children;—the cause of which I shall, in the following paper, endeavour to show.

Some animals are distinguished into male and female, by having the parts destined for the purpose of generation different in the same species. But, besides these, there are other distinguishing marks, between the male and female, of many animals. In the male, the strength is generally greater, the make of the body commonly larger, and they are oftener furnished with parts for fighting with. Although this last distinguishing mark sometimes takes place in the female, yet when both male and female are supplied with parts for defence, these are either stronger in the male, or are attached to parts endowed with more strength. In the human species, although the male be furnished with no part for defence, different from the female, yet there are other distinguishing marks, besides those already mentioned, such as the beard, &c.

Other animals (hermaphrodites) have all the parts of generation united in the same animal. This takes place in the more imperfect animals.

In the more perfect animals, however, viz. those which have the parts of generation different in the same species, something similar to this sometimes happens, in a greater or less degree, it being not a complete union of the male and female organs, but some malconformation of these parts, either in the male or female sex. They also approach, in external appearance, that of the opposite sex. These are called unnatural hermaphrodites, to distinguish them from the former, which are called natural; and they are remarked never to bear young. Although this seldom happens in the human species, yet, owing to particular circumstances, the male or female may partake more or less of the nature of the other sex, and approach, though not in the parts of generation, yet in external appearance and other qualities, to the unnatural hermaphrodite. Thus those males who have been deprived of the testicles, approach more or less in appearance and other qualities to the female; their voices become weak; they have no beard, &c. The female, also, whose ovarium was extirpated by Mr Pott, approached more nearly to the male, her breasts sunk, her voice became strong, and she became more muscular.* Women also, after they cease to bear children, have often the face more or less covered with hair.

This peculiarity then in the female sex, I conceive, resembles those just mentioned, and may be an approach, though a very slight approach, to the unnatural hermaphrodite; and, as it has been remarked, that unnatural hermaphrodites never bear young, may not this be the reason, why women, having this peculiarity, never bear children?

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* Mr Pott does not mention, whether or not there was any approach to the beard.

We copy the following just tribute to the memory of one of the most promising characters in the profession, from Wheeler's Manchester Chronicle.

On Tuesday, the 3d instant, died at the house of his father-in-law, Lawrence Peel, Esq. of Ardwick, Mr Benjamin Gibson, one of the surgeons of the Manchester Infirmary. Though cut off at an early period of life, yet he had long enjoyed such a share of the public confidence, as is seldom bestowed, except on greater length of days and more matured experience. By nature he was liberally endowed with gifts, that peculiarly fitted him for a profession, in which excellence can only result from the union of great delicacy of the bodily senses with strength and sagacity of intellect. These endowments he had improved, by an ardent and persevering study of the branches of science more immediately connected with his vocation; and he united to them a gentleness and urbanity of manner, arising from the most humane feelings, which, while they led to all due sympathy with his suffering patients, never interfered with the steady execution of his professional resolves. But it was not only by the successful practice of what he had learned from others, that Mr Gibson was distinguished. Influenced by an honourable ambition, he aimed at the higher object of extending the usefulness of his profession, and of rendering it, in some diseases, a more perfect instrument of relief. The discoveries, which his talents enabled him to make, he freely communicated; for no man ever more cordially despised empirical conduct, whether manifested by the ostentatious display of knowledge, or by its illiberal concealment. Consistently with this part of his character, he employed himself, at a period of his lingering illness, when the vigour of his mind still survived the wreck of his bodily strength, in bequeathing to the world his improvements in the treatment of some of the diseases of the eye, in the cure of which he had been singularly fortunate. The work, united to his general eminence as a surgeon, has procured him much more than a local reputation; and will deliver his name to posterity as the improver of an art, which, while living, he adorned by his high attainments; by enlarged views of its objects and dignity; and by the benevolent extension of its relief, with an equal hand, to the poor and to the affluent.

W. H.

The following document, relating to the proceedings of the managers of the Manchester Infirmary, in regard to Mr Simmons, was omitted in our last.

SIR, *Infirmary, Nov.* 19*th*, 1811.

At the request of the Weekly Board, I am desired by Dr Ferriar, to call a meeting of the Faculty for Friday, November 22, at 12 o'clock, in consequence of a letter which appeared in the last Number of the Edinburgh Medical and Surgical Journal, purporting to be written by Mr Simmons, but which Mr Simmons declares is a forgery.—I am,

Your humble servant,
F. W. HUNTLEY.

ERRATA.

No. XXIX. p. 28. l. 13. *for* chalybeate *read* chalybeates
p. 29. l. 12. *for* sumenda *read* sumendus
p. 29. l. 30. *for* ℥vj. *read* ʒvj.
p. 31. l. 22. *for* Impen. *read* Impon.
p. 31. l. 24. *for* not *read* no.

Communications have been received from Mr EDMONDSTON of Newcastle, and Mr JACK; which, with the Reviews of several important publications, have been unavoidably postponed to our next.

⁂ Communications may be addressed to the Editors, to the care of Messrs CONSTABLE & Co. Edinburgh; Messrs LONGMAN HURST, REES, ORME & BROWN, London; and GILBERT & HODGES, Dublin.

No. XXXI. will be published on the 1*st of July* 1812.

THE

EDINBURGH
MEDICAL AND SURGICAL JOURNAL.

1. JULY 1812.

PART I.

ORIGINAL COMMUNICATIONS.

I.

Observations on the Opinions of Mr Wilson and Dr Adams, respecting the existence of the Venereal Disease in the Island of Otaheite. By HENRY EDMONSTONE, Surgeon, Newcastle.

THE opinions of an individual, however new, plausible, or ingenious they may be, cannot be considered of much importance in a general point of view, as long as they continue to make no perceptible impression on the public mind. But when we find them adopted by those whose example may be supposed to have a powerful and extensive influence over the minds of others, and more especially when it is attempted, as it were, to ingraft them on a work of the first celebrity, it becomes necessary to investigate their merits, and to endeavour to ascertain what degree of credibility ought to attach to them.

On perusing the last edition of Hunter's Treatise on the Venereal Disease, which fell into my hands only a very short time ago, I was particularly struck with an opinion which Dr Adams, the editor of that work, has expressed in one of his commentaries, namely, that "the venereal disease is unknown in Otaheite." It seems that, so far back as the year 1800, he had begun to entertain doubts of the existence of the disease in the South Sea Islands, on reading the history of the voyage of M. de La Perouse.* These doubts were corroborated on examining the accounts of Captain Cook's voyages, and were finally confirmed, in consequence of some observations which appeared on the subject in the Edinburgh Medical and Surgical Journal for July 1806, by Mr Wilson, surgeon of his Majesty's ship Porpoise.

This gentleman informs us, that he arrived at Otaheite from Port Jackson, in June 1801; and so completely was he impressed with the belief that he should meet with the venereal disease in all its forms, that the only anxiety he felt arose from his wish to mitigate, as much as possible, its effects on the ship's crew.

He was therefore not a little surprised, when, after remaining two months at the island, not an instance of lues venerea had occurred, nor had more than three cases of gonorrhœa been contracted, although the intercourse with the females was unrestrained.

Circumstances so extraordinary, and so very different from what he had expected, naturally excited his curiosity; and the conclusion which his inquiries respecting them led him to form was, "that notwithstanding the accounts we read of the ravages of lues venerea at Otaheite, and even disputations about its first importers, this disease was not introduced there antecedent to the Porpoise's voyages.† To this conclusion Dr Adams not only fully assents, but founds on it various reasonings of his own, and expresses his regret that Mr Hunter should have allowed himself to reason "on data so ill established as the South Sea disease."

As it appeared to me that the validity of medical evidence in general, and in this instance in particular, would be rendered very questionable, if an opinion so contrary to that which had hitherto universally prevailed, were to be received as the true one, I was at some pains to examine the subject; and for this purpose consulted the different works connected with the history of the venereal disease in these remote islands, and in a particular manner the narrative of Mr Wilson, which had wrought such full conviction on the mind of Dr Adams.

The result of my researches suggested the following remarks, with which I take the liberty of troubling your readers. With the view of avoiding unnecessary repetition, and of rendering myself more easily intelligible, I shall follow, as nearly as possible, the order in which Mr Wilson's observations are detailed in the Numbers already alluded to of the Journal, and to which therefore, I beg leave to refer.

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* I may remark, that the diseases described by M. de la Perouse are those of the Sandwich Islands, and consequently do not fall to be taken notice of in this place.

† Medical and Surgical Journal No. VII. p. 283.

Mr Wilson enters upon the discussion, by giving two extracts from Cook's first and second voyages. The length of these quotations, however, is so considerable as to prevent their being introduced here with propriety. He then proceeds: "We are here only told by Captain Cook, in very general terms, that the venereal disease affected his ship's company; but unfortunately the symptoms are nowhere described. The marks of the disease which were observed on the bodies of the natives are by no means conclusive; and their accounts of it do not correspond with the symptoms of lues venerea which usually occur with us." Again, "The unequivocal symptoms of chancres and buboes about the pudenda do not appear to have been remarked."

It is certainly true, that no enumeration of the symptoms of the disease anywhere appears in the accounts of the different voyages. It is stated by Captain Cook, on the authority of his surgeons, that the venereal disease existed in the island of Otaheite, without his once imagining that such a statement could require to be substantiated by a minute detail of symptoms that were familiarly understood. So perfectly were the gentlemen who furnished him with this information satisfied of the truth of the fact, that they communicated it to the world without any comment. The omission, on their part, therefore, so far from tending to diminish the authenticity of what they had asserted, would appear to afford the strongest internal evidence in its favour; for, in common justice to them, it must be presumed, that had any symptom capable of exciting suspicion in their minds been observed, they would not have passed it over without notice. Their silence, therefore, renders it sufficiently evident that it was the venereal disease and no other that they met with. Were an intelligent medical traveller, returning from a distant country, to relate that he had seen many of the inhabitants labouring under small-pox, measles, hooping-cough, or any other well known disease, no person, I apprehend, would be inclined to doubt the truth of his relation, merely because he had failed to describe the characteristic symptoms of these diseases. Still less cause is there for scepticism, where those who lay claim to our confidence are known to have been persons of skill and veracity, selected for the express purpose of superintending the medical department of the different voyages.

But independent of the inadmissibility, on general grounds, of this species of reasoning, its rejection in the present case becomes a matter of absolute necessity, at least in so far as Mr Wilson is concerned. For, if a judgment similar to that which he has passed on the conduct of his professional predecessors, be retorted upon himself, the accounts which he published of some other diseases of the Otaheitans will not be found entitled to a moment's attention. He says that fevers, dysentery, rheumatism, phthisis, elephantiasis, and some others, are prevalent in the island; but in no instance has he detailed a single characteristic symptom of those affections. No person, however, thinks of discrediting his statements; nor indeed would he have cause to consider himself treated with much respect, if the public were to refuse its assent to what he has advanced, simply on account of his having neglected to mention appearances, with which, I suppose, he took it for granted that all his readers were intimately acquainted. Yet for no better reason does he withhold his belief in the declarations of persons equally deserving of credit with himself.

It is not unworthy of notice also, that in the very sentence in which Mr Wilson so freely censures those who had gone before him for not remarking the unequivocal symptoms of chancre and bubo, he says that, "as far as his observation went, he had reason to believe that an examination of the parts was generally found to be impracticable." If this was so difficult at the period when he visited these islanders, it is scarcely to be supposed that it could have been more easily effected immediately on their first acquaintance with Europeans.

Mr Wilson next alleges, that "Captain Cook's observing none in whom the disease had made great progress, was certainly a contradiction to their assertions." For my part, so far from perceiving the necessity of this conclusion, I am inclined to think that, without any perversion of its meaning, the sentence will bear an interpretation the very reverse.

Captain Cook's having seen none in whom the disease had made *great* progress, obviously implies that he must have seen others on whom it had made *some* progress, else whence the necessity for the distinction?

The very name which the natives assigned to the disease, a name "synonymous with the word *rottenness* in our language, or something still more forcible," constitutes a strong presumption on this point, as it is impossible that gonorrhœa could have given rise to such an idea in their minds. Besides, "the sick being abandoned by their nearest relations, and left to die," and their being "left to perish alone in such misery as *till then* had never been known to them," * are unequivocal indications that something more than gonorrhœa must have been observed, and that some well marked external symptom must have manifested itself.

Mr Wilson continues: "Mr Anderson, who was surgeon of the Resolution, in Cook's third voyage, speaks in still more positive terms of the frequency of lues venerea at Otaheite, as appears from the following extract." After quoting the passage, the length of which precludes its insertion in this place, he goes on, "But as this ingenious gentleman (Mr Anderson) has neither informed us of the symptoms which appeared among the ship's company, nor described in what manner the disease showed itself on shore, it may be fairly presumed that he adopted the opinion of his captain, and confounded the most common disease, viz. scrofula, with lues venerea." Without insisting farther on the insufficiency of Mr Wilson's objection on the score of neglect in Captain Cook's surgeons, the inference here attempted to be drawn, is, I am afraid, neither candid towards Mr Anderson, nor is it conformable to what we have every reason to believe was the fact. The narrative of all the voyages certainly appears in the name of Captain Cook; but from the explanation given by Hawkesworth, in his introduction to the first voyage, with regard to the information furnished by Sir Joseph Banks and others, and also from what actually occurs in the history of the subsequent voyages, it is evident that the chiefs of the several departments supplied the details of the respective subjects committed to their charge. In the third voyage, in particular, Captain Cook repeatedly acknowledges his obligations to Mr Anderson for the valuable observations which he communicated, and which on many occasions extended to other subjects than those purely medical. I mention these circumstances, for the purpose of showing the extreme improbability of Mr A. receiving any of his notions respecting diseases from his captain.

It is fully as reasonable to suppose Sir Joseph Banks, Dr Solander, or Mr Forster, to have been entirely guided by Captain Cook's opinion in their decision of any particular point in natural history or botany. But even granting that Mr Anderson did, in the instance alluded to, adopt the ideas of his captain, it must at the same time be admitted, that Captain Cook had originally formed his opinion on the subject on the reports of Mr Monkhouse and Mr Patten, the surgeons of the Endeavour and Resolution in the first and second voyages, supported, as these had

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* Vide Cook's Voyages.

been, by the testimony of Bougainville's surgeons. That all these gentlemen should have entirely mistaken a disease with every symptom of which they could not but be perfectly familiar, is a supposition which, to say the least of it, is extremely improbable.

That at the time these voyages were made, the belief in the identity of chancre and gonorrhæa prevailed very generally, and consequently that practitioners were not likely to make any distinction between them, is of little avail to the argument; for the question still recurs,—why mention the ravages of gonorrhœa when they must have known that it almost universally cured itself; and what could give rise to the custom of setting the diseased apart to die, if, as Mr Wilson believes, gonorrhœa preexisted there, "and will always be found where man is found?" *

Mr Wilson lays much stress on the improbability of the venereal disease being eradicated, after having once been so common, "even" says he "if the inhabitants were in possession of a specific remedy, of which I am well assured they are not."

That they were in possession of no antidote, of powers equal to those of mercury, is certain; but that they were destitute of every means capable of exerting a partial influence over the disorder, is not so apparent. Waving, however, all contest on this point, and admitting that the natives of Otaheite never knew of any specific for lues venerea, the extermination of the disease would not seem on that account alone to be impracticable. The terror which its first introduction excited in the inhabitants, and the system of seclusion and abandonment to which they had immediate recourse, "lest," as Captain Cook observes, "the calamity should spread by contagion," are circumstances that render it by no means difficult to comprehend the possibility of setting limits to its propagation, if not of extinguishing the malady altogether.

A plan of this kind, if duly acted upon in such a situation as Otaheite, an island of very limited extent, and where concealment was not easily practised, would in a short time be productive of the most beneficial consequences in this respect. All voyagers bear witness to the unlimited power of the chiefs in the South Sea Islands, and especially to the rigid manner in which the *taboo* is enforced, and the impossibility of infringing its laws. This, which is the most perfect system of quarantine or embargo, of which perhaps there is any instance, is made to operate with equal celerity and effect on any number of people, and to any distance, from that of a few yards to a whole district or island.

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* Medical and Surgical Journal, No. VII.

It may even be urged, with some degree of confidence, that the very absence of a remedy, and the consequently hopeless nature of the disease, would form the strongest reason for compelling the infected to withdraw from the healthy, and for inducing the latter to abstain from every species of intercourse by which the disease might be imparted. Nay, it is probably not hazarding too much to allege, that were circumstances of a similar description to occur in European countries, where detection is so much more difficult, the extirpation of lues venerea would infalibly take place, though a considerable period must necessarily elapse before it could be effected. It is the assurance amongst us of possessing the means of cure, that takes away much of the dread of exposure to infection. Let it once be understood that the disease is irremediable, and the causes which tend to perpetuate its ravages would soon cease to operate. It should be kept in view, also, that in these distant islands there did not exist, except during the visits of Europeans, the incitements to sexual intercourse on the part of the diseased, which, in more civilized regions, arise from motives of interest or imperious necessity, and which have so direct and powerful a tendency to keep alive the infection. It appears from the account of Lieutenant Watts, which appears in the history of governor Philips's voyage to New South Wales in 1788, that the island of Otaheite had not been visited by any European for nearly ten years, a period fully capable of occasioning a very considerable decrease in the number of the diseased, the principal source of infection being entirely cut off; and supposing the precautionary measures to have been duly persevered in, it is even possible to trace the happy effects which the system of internal quarantine had produced in the short space of time that intervened between the introduction of the disease by Bougainville's people, and the arrival of the Endeavour, and still more remarkably during the interval between Cook's first and second voyages.

As a farther proof, if indeed any were wanting, of what such a practice can accomplish, it is only necessary to advert to what Mr Wilson himself has written. Upon no other principle can the unfrequency of gonorrhœa, during the first visit of the Porpoise, be explained. For without some regulation of this kind having been extended even to that comparatively trifling complaint, there is no adequate cause to account for the rareness of the disease, where the intercourse of the sexes was unlimited. On the contrary, the disease under such circumstances ought to have increased. We find also, that when a fresh importation of infectious matter took place, or when the temptations to promiscuous venery were present in greater force, the disorder immediately spread itself.

The fact, therefore, of the non-existence of the disease in the island of Otaheite, even if it were incontrovertibly established, is far from amounting to a demonstration that the disease had not existed there at some former period.

It is much to be regretted that Mr Wilson, who has not been over indulgent towards his predecessors, should not have made amends for their neglect, by pointing out some of the discriminating characters of those ulcers and tumors which he is so decidedly of opinion were mistaken for lues venerea. The want of such information is the more sensibly felt, on account of a fact noticed by the missionaries, whose testimony, though not the most satisfactory on a subject of this nature, must be regarded as wholly unprejudiced. They describe, in their history, the extraordinary effects which mercury produced on the ulcers with which the natives were afflicted, effects so salutary as to be obvious to the rude perceptions of the sufferers themselves. Although it may have the appearance of undervaluing the reader's powers of discrimination, I cannot refrain from taking the opportunity of directing his attention to the incompatibility of such changes with the notion of any scrofulous taint in those sores.

Another cause of the ambiguity in which this part of the subject is involved, may be found in the following admission which Mr Wilson has made in one part of his communication. He says, page 281, "I presume no fact can be better established than that the venereal disease did not exist, *at least in a mode capable of communicating the infection in the usual manner*, at the time of the Porpoise's visits." From this concession one is almost inclined to suppose that Mr Wilson had abandoned one of the leading arguments in support of his opinion of the previous exemption of the island from the disease. Be that, however, as it may, it certainly has the effect of throwing considerable obscurity over most of his reasoning, and at all events of rendering it very inconclusive.

From these, and various other considerations that might be urged, but which I shall not at present trespass farther on the reader's leisure by bringing forward, I think we have satisfactory grounds for concluding, that the evidence in favour of the opinion promulgated by Mr Wilson, and so pertinaciously insisted on by Dr Adams, is not of that unexceptionable nature, which should induce us to disbelieve all that has been previously written on the subject.

Newcastle, March 1812.

II.

Case of Urinary Calculus. By Alexander Jack, Surgeon.

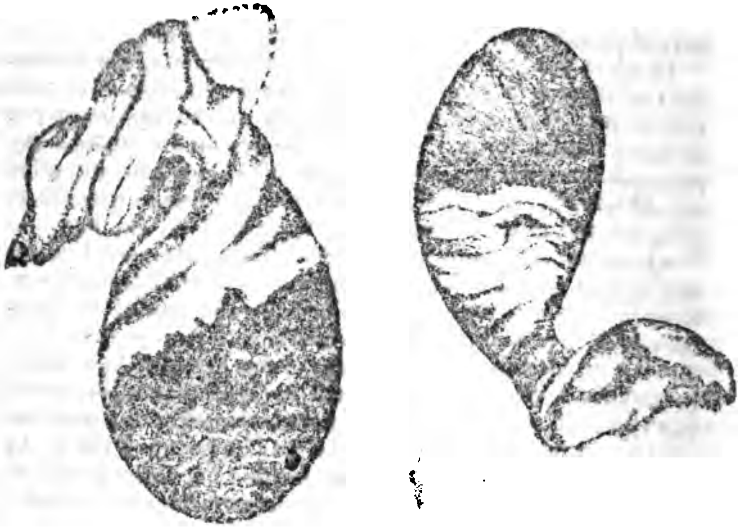
Corporal Blanchflower of the marines, aged 28, of a middle stature, sallow complexion, and spare habit of body, complained to me, about the latter end of May 1807, of difficulty in voiding his urine, extreme pain in passing the little he did; severe pain in the left lumbar region, and of numbness in the fore part of the thigh at that side. Generally of a costive habit. The bladder did not appear much distended. The introduction of the catheter produced no flow of urine, but on being withdrawn, a few drops of a white pus-looking fluid came off, attended with severe lancinating pain in the urethra. About twelve years before this period, he had a similar attack, which went off after a discharge of white pus from the urethra. In the last attack, opiates were given to relieve pain, and laxatives to obviate costiveness; the warm bath was also used twice a day, which produced temporary relief, and brought on a discharge of urine, mixed with whitish-coloured matter; and for the time being the numbness of the thigh went off. Under this treatment, the patient got about again in five or six days time. From this last period, up to the 8th December of the same year, he had several attacks of the pain in the lumbar region, attended with a white discharge mixed with the urine: but these fits were never so severe as to prevent him from his duty. An opiate at night, followed by a cathartic in the morning, always relieved him. On the 8th December 1807, the last and fatal attack took place; the pain in passing water was more intolerable, and the pus mixed with it, increased in quantity, which, on standing in the urine some time, always subsided to the bottom, and had nothing of a gritty feel. The symptoms continued with little alteration, except what temporary relief the warm bath and opiates afforded, which was now much less than he was wont to experience from them. On the 11th, I attempted to introduce a catheter; but it was obliged to be withdrawn, when it had passed as far as the bulb of the urethra, owing to the acute pain. The urine flowed several times during its introduction. 13th, The urine began to flow plentifully, mixed with pus, but involuntarily; the pain at this time was particularly acute in that part of the urethra behind the scrotum. There was now considerable debility; and the other symptoms remained much the same. 18th, The left loin is painful to the touch, and to the patient appears as if swelled, which however was not perceived on inspection of the part. Has been injecting a weak watery solution of opium into the urethra, for these some days past: it has produced no relief of pain. About this time he began to complain much of pain in the region of the bladder when pressed upon. 22d, All the symptoms greatly aggravated. Urine voided every few minutes, with most intolerable pain. 27th, Complains of aching in the lower extremities. 29th, Has evacuated a great quantity of air downwards; and now, for the first time, complains of fulness or tightness about the abdomen. 31st, Every symptom increasing, with extreme debility. Symptoms of coma begin now to appear. 2d January 1808, Vomiting and sickness during last night. Yesterday he complained more of the pain in the bladder, and less of the lumbar region, than he had done at all. 4th, Comatose state is now almost constant, attended now and then with *subsultus tendinum.* All the other symptoms getting worse and worse. 6th, Most of the day troublesome singultus. 7th, At 2 A. M. expired.

During the first part of the complaint, he used the warm bath once or twice a-day. As he was unable latterly to get up, the abdomen and perinæum were fomented with flannels wrung from hot water. Laxatives and injections were frequently required, as he was very costive. Opiates were for the most part given at bed-time. These, with soap pills and mucilaginous drinks, constituted the treatment of his complaint. The bathing fomentation, and opiates, for the most part, afforded temporary relief. During the last two or three days of the complaint, a little blood was discharged from the urethra. I need scarcely state, that febrile symptoms attended; they were not such, however, as to require evacuations of any kind.

Dissection.—At 7 A. M. of the day on which he died, the body, now much emaciated, was opened. Appearances were as follow.

Stomach distended with flatus, blood vessels on its surface turgid. Liver rather hard in its substance, and lighter coloured than usual, having a number of light ash-coloured spots on its convex side, from the size of a shilling downwards, firmer to the feel than the rest of the liver. Above the pubes was seen the fundus of the bladder projecting upwards, forwards; and towards one side, much thickened, and very hard. The body of the bladder was nearly in the same state, containing a quantity of fluid, and a hard body like a stone. Upon its being laid open, a pint of sanious matter, tinged with blood, was evacuated, having a very fetid smell. The thickness of the body of the bladder was about half an inch; towards the fundus, three quarters of an inch; the whole having a scirrhous appearance. The outer surface was irregular and pitted; the inner in some places was raw, having a muscular appearance; other parts covered with pus and ulcerated; while the remainder of the internal surface was covered with layers of sand, strongly adhering to the bladder, and having the feel of common sand-paper: there were also a few fungous excrescences. The bladder was divided into two cavities; the projecting fundus formed one, and the rest of the bladder the other; the former of the size and figure of a hen's egg of a small size. Besides the pus, there was a stone of a very singular appearance found in the larger cavity of the bladder, the figure of which is given in the annexed sketch. The oval portion is exactly the size of the cavity in the fundus of the bladder, and somewhat flattened; to this is subjoined, by a small neck, another portion of stone, and placed transversely with respect to the former. The communication between the two cysts of the bladder corresponded to the size of the small neck joining together the two portions of stone. The oval portion appears to have been completely formed, and lain in the small cyst for some years prior to the formation of the other portion; it is dense, hard, smooth on its surface, composed of concentric layers, and of a dark brown colour. The second and last formed portion is irregular in shape, and softer than the other; some of it has the appearance of being in layers, but the greatest portion has a granular and spongy texture: its surface is rough, and of a light gray colour. Both the kidneys were enlarged and flaccid, but most of all the left one (where the pain had been seated), which, on being opened, discharged a great quantity of pus, of the same quality, and nearly about the quantity contained in the bladder, except that it was not tinged with blood. I should have mentioned before, that the pus contained in the bladder was mixed with a white curdly-looking matter, like that discharged from scrofulous sores. Such were the appearances observed on dissection, which, but for particular circumstances, would have been carried to a greater extent.

From the above history and dissection, it would appear, that the oval portion of stone had been formed, at least retained, after it had acquired a small size in the cyst at the bottom of the bladder: that the remainder of it had continued to accumulate, whilst the stone was retained in this position, until the attack of the last fit, when, probably it was thrown from the sac it had lain so long in, by some strong spasmodic action of the fundus of the bladder; from whence, probably, may be explained the reason why the symptoms of stone in the bladder were either awanting, or so very trifling, during the number of years it must have taken in accumulating.



The dotted line represents a portion accidentally broken off.
Length of the broadest part of the neck, not including the broken portion, 1½ inch.
Neck, where narrowest, half an inch.
Extreme length, $2\frac{3}{10}$ inches.
Extreme breadth, 1½ inch.
Thickness of body, 1 inch.

Hamoaze, 16*th January*, 1812.

III.

An Account of a Case of Lithotomy; with Practical Remarks.

By James Barlow, Surgeon, Blackburn, Lancashire.

In an art of such extended importance as surgery, which involves so many of the natural evils to which mankind are unavoidably exposed, and where disease is so frequently diversified and modes of treatment varied, the recording of such events, whether as terminating favourably or fatally, is a method of conveying information, which is justly sanctioned by the most celebrated professors of the art.

Hence I have been induced to lay an account of the following case of lithotomy before the public, more particularly as its history is distinguished by some peculiarity of circumstances; and in doing this, I have also availed myself of the opportunity of interspersing a few practical remarks connected with the subject, which have suggested themselves to my mind during the progress of the patient's cure.

About five years ago, I was consulted by Richard Holden of this neighbourhood, a stout, corpulent, robust man, then about 60 years of age, on account of great pain when passing his urine, accompanied with very frequent provocations to propel it. He informed me, that for some years past he had occasionally discharged both blood and mucus from the urethra; and that any violent bodily exercise was usually the forerunner of the former indication of calculous affection. These, together with other ordinary symptoms, led me to suspect a stone in the bladder; and I proposed passing a sound into that viscus, in order to adjust the opinion I had preconceived on the nature of the case. This proposal was, however, rejected, from an idea entertained by the patient of the pain which the introduction of an instrument into the bladder must unavoidably occasion. * In this state of incertitude, my patient absented himself from me, and continued with frequent intermissions of pain till the sixth of November 1811, a lapse of five years, when I was requested to visit him. On my arrival, I was informed that he had not been able to evacuate his urine for nearly two preceding days and nights. On laying my hand on the abdomen, the patient complained of a considerable degree of pain in the region of the bladder, which was connected with tension, and the scrotum and ambient parts were of a dark livid colour. The catheter was immediately introduced, and my former opinion fully confirmed by the instrument striking against a stone, and was also notified by the sound emitted to the ear very distinctly. Nearly two quarts of dark-coloured urine were

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* It may be observed, that although the neck of the bladder be the part chiefly affected in a fit of the stone; nevertheless, it not unfrequently happens, that upon the sound being passed into the bladder, the stone is forced from its situation, and the patient experiences relief for a considerable interval, and till the stone, from some cause, becomes pushed into its former situation.

drawn off, which afforded temporary relief; the warm bath was recommended, a laxative glyster was administered, and an aperient mixture directed to be taken in divided doses, which produced several copious evacuations by stool, and reduced the tension, and considerably relieved the soreness of the abdominal region. Nevertheless, the retention of urine still continued, caused, I apprehend, by a calculus lodged in the vicinity of the neck of the bladder; for every time the catheter was passed, it was resisted by the presence of a stone, and little or no water could be extracted without first pushing the point of the instrument against it, and raising the stone from its situation, and keeping the instrument in this position till the bladder was emptied. By this manœuvre the impediment was surmounted, and the urine evacuated once or twice every twelve hours during several succeeding days, by the use of the common silver catheter, until I prevailed on my patient to be removed to the town (Blackburn), where I had an opportunity of paying more particular attention to the urgency of the case. On his arrival, I introduced a flexible metallic catheter into the bladder, fitted with a small cork to plug up the end; the fore-finger being passed up the rectum, served to bend the apex of the instrument under the arch of the pubes, where it was permanently fixed, so that he could evacuate his urine *ad libitum.*

The indispensableness of the finger in the rectum, whilst passing the instrument, afforded me an opportunity of ascertaining the morbid indurated state of the prostate gland, which was greatly enlarged, and in a very rigid condition. *

Notwithstanding the antiphlogistic regimen was rigorously adhered to, there remained a considerable degree of soreness on the region of the pubes, attended with quick pulse and fever, insomuch that I did not then propose the operation of lithotomy, being aware of the consequences that might ensue from the attendant symptoms, excited by consequent irritation, the frequent effects of calculi, and a long distended state of the bladder; nevertheless, these unfavourable symptoms gradually abated, together with the tension of the abdomen, and the operation became admissible; * and after being determined on, and the preparatory regimen adopted, I performed it on the seventeenth instant (November), in the presence of two assisting surgeons and the necessary attendants. The patient being placed and secured in a horizontal position upon a study table of commodious height, and supported by pillows, with the breech projecting over the edge of the table, the first stages of the operation were conducted in the usual manner, and with tolerable facility. On the membranous portion of the urethra being laid open with the scalpel to the commencement of the prostate gland, the beak of the bistouri caché was inserted into the groove of the staff; the handle of the staff was taken hold of with the left hand, and raised from the right groin of the patient to nearly a right angle with the body; the bistouri was then carried gently forwards into the bladder and the staff taken out; the cutting edge of the bistouri being turned laterally towards the left ischia of the patient, and raised from its sheath, it was withdrawn † nearly in a horizontal direction; and in executing this step of the operation, I perceived an unusual resistance ‡ and grating sensation, as if cutting through a cartilaginous substance. The fore-finger of the left hand was now passed as high as possible into the bladder, through the opening made by the bistouri, and with difficulty the surface of a stone

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* The symptoms of stone in the bladder, and a morbid condition of the prostate gland being in some respects similar, it is highly necessary that the surgeon should invariably pass the finger up the rectum prior to the operation; and if the gland be enlarged, it will be discovered with the greatest facility. By such timely investigation, the surgeon will be governed in the various stages of the operation, and thereby be enabled to form a pretty accurate idea of the determinate extent of the incision of the neck of the bladder, and necessary extension of the blade of the bistouri, prior to its introduction into the bladder.

The presence of a stone in the bladder may generally, by attention, be distinguished from an irritable state of that viscus; for in the former affection, and during the discharge of urine, the pain increases till the last drop is voided; whereas, in the latter case, relief is observed in a reverse ratio,—for as soon as the water begins to flow, the patient is somewhat relieved; and when the whole is evacuated, there is no pain left, and the functions of the bladder are usually restored.

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* Daily observation evinces, that simple irritation excited in the bladder, by the presence of a stone in that viscus, not unfrequently subsides on the primary exciting cause being removed by its extraction without impeding its functions.

It does not appear that a low degree, even of frequent irritation, excited by a stone in the bladder, is altogether unfavourable to the success of the operation of lithotomy, when performed during an interval of cessation from pain; but if there exist any nephritic affection, the danger is then manifestly increased, and the operation should be undertaken with great caution, and deferred, if possible, till such pain wholly ceases, and the consequent irritation of the system subsides.

† The bistouri caché possesses an important advantage over the gorget, which no construction of that instrument can possibly surmount; for the surgeon has it in his power to adapt the blade of the bistouri to the exigency of every individual case, prior to its introduction into the bladder; and should the stone be suspected to be of unusual magnitude, or less than what was at first imagined, the screw of the handle may be moved whilst the apex is in the bladder, and the cutting part regulated accordingly.

‡ The enlargement of the prostate gland, in this instance, seems most probably to have been occasioned by the irritation which the long retention of the stones in the bladder had excited on the functions of that organ.

was felt; for owing to the man's state of corpulency, the greatest part of the hand became buried in the wound. The forceps were then carefully introduced by the side of the finger, which served as a guide to detect the stone. The finger being withdrawn, the stone was seized by the blades; but from the great expansion of the handles, I was led to believe that the calculus was either very large, or otherwise taken hold of in an unfavourable direction. To ascertain this incident, I endeavoured to reach the stone by insinuating the finger betwixt the extended blades of the forceps, but was opposed by the bulk of the prostate gland; for it appeared to occupy so considerable a space, that its extent could not be wholly traced by the finger in any direction. I therefore judged it expedient to let go the stone, and attempt to seize it in a less diameter; and after using every possible means in my power, I was obliged to abandon this project; and the extent and rigidity of the prostate, and its unyielding condition, induced me to enlarge the incision; for on every attempt to extract the stone, the body of the gland was brought forwards into sight, and appeared to completely wedge up the space betwixt the two rami ischii. Thus situated, and whilst the left hand was employed in gently drawing forwards the forceps along with the stone, the right was engaged in dilating the wound with the scalpel in a line with the external incision, where the resistance opposed the chief obstacle; in this manner sufficient room was made, and the transmission of the stone effected. It was of an oval shape, and its long diameter 2.25, and its short 1.75 inches. A female sound was immediately passed into the bladder, and another stone detected larger than the first, and which was extracted with proportionate difficulty. It was also oval, but measured 2.6 inches one way, and 2.1 the other. From the different situations in which I had an opportunity of recognizing the prostate gland of this patient, both by the finger passed up the rectum and through the wound in perinæo, its lateral lobes evidently projected considerably on the rectum, and it appeared the shape and size of the gizzard of a goose.* Several arteries were divided in the

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* Although a morbid enlargement of this gland may induce an unfavourable prognostic of the success attendant on lithotomy, yet it is not an insuperable reason for its being altogether abandoned; for daily observation shows, that this organ, when indurated and enlarged, will frequently endure much violence with comparative impunity.

The symptoms characteristic of stony concretions in the bladder, and an indurated condition of the prostate gland, are sometimes confounded with each other. Hence will appear the necessity of discriminating betwixt these two diseases; and an ac-operation, which required the ligature; and there was a considerable oozing of blood, which appeared to come from the divided edges of the prostate gland. A canula was introduced into the wound, which by its pressure on the incised portions of the gland, prevented the blood from making its way into the bladder, and soon stopped the bleeding.

A plaster of lint, spread with cerate, was applied to the wound; the patient was then conveyed to bed, and his knees brought together, and secured by means of a tape passed round his thighs. A draught, composed of sixty drops of tinct. opii, was administered, and the patient left to take repose. On calling in the evening, I was informed that the medicine had not produced sleep; he appeared restless, with quick pulse. There was no tension or pain about the region of the bladder, nor any hæmorrhage from the wound, and the urine flowed *guttatim* through the canula without interruption.

A warm bath was immediately procured in the room, into which he was put and remained twenty-five minutes, which afforded some temporary relief, but without producing syncope or diminishing the vibratory force of arterial action. On being removed to bed, the opiate draught was repeated, but did not induce the least inclination to sleep the whole of the night. In the morning the canula was removed, and the wound dressed as before. A saline mixture, with antimonial wine, was directed to be taken. An aperient glyster was administered for several succeeding days, and occasional purgatives exhibited, to stimulate the torpid disposition of the intestines, all which produced their desired effects. The warm bath was repeated twice every twenty-four hours for ten days successively, and the antiphlogistic plan was strictly enjoined till the symptoms of fever and irritation subsided.

On the twentieth instant, three days after the operation, a degree of soreness and tension manifested itself in the lower part of the abdomen, which extended along the urethra, and which assumed the appearance of peritoneal inflammation. But, on a-

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tentive observer may generally form a tolerably accurate criterion, by attending to the nature of the discharge from the urethra; for in a disease of the prostate gland alone, the discharge is generally a mixture of viscid mucus and urine; and when connected with calculi in the bladder, it becomes frequently incorporated with sabulous matter.

A thickening of the coats of the bladder, even if it could be ascertained prior to the operation, yet ought by no means to prevent its being performed, unless connected with some other disease; for I have witnessed many cases of this description, which terminated favourably.

minute investigation I was convinced, that the tension of the abdomen was caused by the parts of the wound connected with the operation being distended with inflammation, which wholly prevented the action of the bladder and voluntary power of the abdominal muscles from propelling the urine* through the aperture. Without hesitation, I passed a female catheter up the wound in perinæo into the cavity of the bladder, and evacuated more than a quart of limpid urine of healthy appearance. This unusual mode of assisting nature in relieving herself, was found necessary to be repeated every eight or ten hours for several succeeding days, until the tension and inflammation of the parts connected with the wound had subsided; after which the urine returned through the artificial aperture with comparative freedom. About three weeks from the time of the operation, a little urine made its way, at intervals, by the channel of the urethra, and the man seemed gradually recovering; when on a sudden a new train of symptoms came on, accompanied with inflammation and swelling of the right testicle, attended with violent obtuse pain, which produced a slight degree of fever and constitutional irritation of the system. Ten leeches were applied to the inflamed scrotum, and cloths moistened in a solution of ammonia muriata in vinegar and water were kept constantly applied to the affected part; a brisk purgative draught was administered, and a scanty regimen enjoined: yet every precaution used to disperse the swelling and inflammation proved unavailing, and suppuration was announced by frequent rigors, and the structure of the testicle becoming less tense. A poultice was then applied, and renewed three times a-day, till a fluctuation of matter became perceptible, which was let out through an opening made with a lancet; the part soon healed, and the tension of the testicle gradually subsided; soon after which the left testicle became enlarged and painful, and assumed one smooth solid substance. Leeches and other topical applications were assiduously applied, as in the former affection, and a mixture, apparently of pus and urine, was regurgitated * by the urethra, which continued for the course of eight or ten days, and then the inflammation and swelling gradually disappeared. From this period the wound in perinæo assumed a granulating and healthy appearance, and the urine was voided voluntarily through the urethra in increased quantity; and in the space of ten weeks, from the time of the operation, the wound was completely healed, and the man returned home in a state of apparent good health, being able to retain his urine in considerable quantity, and propel it at pleasure. On a minute examination of the state of the prostate gland at this period, by the finger in ano, its size appeared very much diminished from what it was prior to the operation †.

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* I am induced to believe, that ischuria vesicalis, subsequent to the operatien of lithotomy, is a very rare occurrence; and, so far as my inquiry extends, is scarcely noticed by any authors who have written on the after-treatment of patients labouring under this disease, it being a circumstance which may be occasionally mistaken for peritonitis, seeing the symptoms, on a superficial inspection, bear some analogy to each other. Hence will appear the necessity, in every instance of abdominal affection, for the surgeon minutely to investigate the state of the bladder, and witness the discharge of urine from the wound or by the urethra. By strict attention to this particular, the morbid retention of urine may be distinguished from abdominal inflammation; and by the introduetion of a female catheter through the wound into the bladder, the water may be discharged as often as required, and till the inflammation subsides, by which means the patient will be relieved; and by neglect of this mode of manual assistance, inflammation of the bladder and abdominal viscera would inevitably follow; for there is much reason for believing, that serious mistakes have sometimes ensued from this species of retention of urine.

I have lately had an opportunity of conversing with my patient; and he informs me, that some weeks past he parted with two small pieces of rough calculi by the urethra, and there is a deposit of sabulous matter in his urine; from which it appears probable that the disposition to the formation of stone still exists.

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* I conceive it is not easy to explain the real cause of this malady of the testicles, nor do I find such an occurrence mentioned by writers on lithotomy: however, I will hazard a conjecture, that in all probability some irregular particles of calculi, separated from the urine, might become entangled behind the veru montanum, and obliterate the orifices of the seminal ducts, and in this way produce irritation of the contiguous parts; or, by sympathy, the vas deferens might participate therewith, and the inflammation be communicated to the testis; for it appears likely that the matter was regurgitated through this duct from the testicle to the urethra.

† I am inclined to believe, that if the gorget had been used in this case, it would not have divided more than half of the left portion of the prostate gland, consequently the incision must have been quite inadequate for the extraction of the stone, and probably too small to admit the blades of the forceps without much violence; and owing to the indurated structure of the gland opposing such a degree of resistance to its introduction into the bladder, it is more than probable that, during the attempt to accomplish this step of the operation, the prostate gland must have been severed from its connexion with the membranous portion of the urethra, and the posterior part of the bladder become transfixed.

IV.

Case of Encysted Tumour of the Brain. By Dr ALEXANDER JAMES BUCHANAN, of Glasgow.

IT is a remark worthy of serious consideration, that nothing is more pernicious in the theory of medicine, than to form general conclusions from the observation of a few insulated facts. Indeed, nothing has tended more to retard the true advancement of the science, or has been more destructive in the practice of physic, than to start new doctrines upon such grounds, and urge the general employment of remedies, when the opinions, upon which their use is founded, are supported by only a few cases, perhaps ill authenticated, and at any rate uncertain, from the very circumstance of their being few in number.

The approaches to generalization on the diseases of the brain, have, from the complexity of its structure, and our ignorance of the uses of its various parts, been necessarily retarded. Nor can we with propriety expect, while our knowledge is thus confined and imperfect, to speak with certainty on the proximate causes of the affection of any particular part of this organ, or draw conclusions at all satisfactory regarding its effects. Were we always to find a particular symptom the invariable attendant on a particular modification of morbid action, and this consequence to happen as regularly as the effect of any other constant exciting cause, and did no instances prove the fallibility of such expectations, then might we deduce general conclusions, in all probability incontrovertible. Such, however, unfortunately, is not the case. Yet, notwithstanding this, some, with all the pomp of syllogistic decision, have brought forward the few facts in their possession, and, upon such scanty basis, have led forth deductions, in their estimation altogether conclusive, and, without admitting the possibility of the occurrence of any new modifications, have closed in the generalization of the old.

I was led to these remarks, by the review of some positions established by particular authors, regarding the diseased affections of the structure of the brain, with which, after collating the following, and a few other cases given to the world, by medical gentlemen of respectability, the latter could not, even after a reasonable degree of flexion and extension, be brought to agree. I do not mean, at present, to enter upon a refutation of these doctrines, but may perhaps trouble you afterwards with some observations upon them. Neither is the following case offered with the view of deducing from it any remarks of practical importance. It appeared to me worthy of being recorded, from the singularity of the phenomena found upon dissection, and the little connexion discoverable between them and the previous symptoms.

Agnes Maclellan, aged five years, had for a considerable time been affected with hooping-cough, the symptoms of which had, however, been uncommonly mild. On the 3d of November, when I first saw her, she had been ill for about three weeks; and according to the account given me, it did not appear as if about to leave her, although the fits of coughing were short and easy, and she was in every other respect in good health. As no emetic had been tried, I ordered an antimonial one, and also recommended a change of air for the child, and it was determined accordingly to have her carried into the country. Upon calling a few days after, I was informed, that they had not thought it necessary to have her removed, as the paroxysms had become daily fewer, and more easy, but that she had been otherwise very ill since my last visit. She spent her nights restlessly, did not take her meat as usual, and her stools were slimy and dark-coloured. Her mother also assured me, that she had been much changed within these few days, in almost every respect—her toys afforded her no amusement—at one time she would become unusually lively, and at another, insensible and torpid—and that when free from either of these, she was peevish, fretful, and discontented. Such incongruous symptoms induced me to be more particular in my examination; and upon after inquiry I learned, that at all times since the accession of the hooping-cough, she appeared much disposed to sleep, but could enjoy none, latterly, from her incessant tossing and restlessness. This train of symptoms had become more urgent for two days past; the pulse was small, quick, and frequent, beating 135 in the minute; and Fahrenheit's thermometer, upon placing the bulb in the axilla, stood at 102°. Her tongue was white and furred, and her thirst considerable. An attendant told me, that when more sensible in the night, she had complained of pain in the head. She was much reduced in flesh; her face was suffused with an unhealthy flush; there was much throbbing of the temporal artery, and the eyes were tender. These symptoms led me to think, that the child was labouring under an attack of the common infantile fever, and that all the appearances mentioned originated from, or were at least intimately dependent upon the state of the alimentary canal. Cathartics being therefore indicated, I ordered a brisk one, which was immediately given. By next morning, the medicine had effected a very complete evacuation of the bowels, the greatest part of which was very fetid, and of a mucous appearance and consistence. She had vomited a quantity of light greenish fluid; the pulse was reduced to 100, without intermission; the heat was more moderate; and I began to form a favourable prognosis. My hopes were however delusive; for upon the succeeding morning a great change for the worse had taken place; the pulse still continued less frequent, and the febrile heat appeared recessant; but the pulsations were tremulous and irregular, and the extremities were cold and livid. The mouth soon became loaded with aphthæ, the respiration was stertorous, and she appeared to be comatose. These symptoms continued with exacerbation till the morning of the 14th, on which day, at eleven o'clock A. M. she died.

From several circumstances attending the above case, I was induced to request permission to examine the body, which was granted. I accordingly, on the afternoon of the day on which she died, laid open the cavities of the thorax and abdomen, and examined the viscera of each, with the greatest care, but could discover in neither, in so far as I could judge, the smallest appearance of morbid alteration. In the stomach, I found a quantity of light greenish fluid, similar to that which had been vomited; the intestinal canal was almost completely empty; but no diseased change of structure was perceptible.

Convinced that what I had seen was insufficient to account for all the appearances which had manifested themselves during the progress of the disease, and although, from a consideration of the pathognomonic symptoms of hydrocephalus, I did not expect to meet with any considerable accumulation of fluid in the cavities of the brain—an increased action of the arterial system, having been one of the chief characteristics of the disease, the pupils also having remained all along sensible to the light, and not the slightest inclination to convulsive motions having been discovered in any part of the body—still, however, as there had been stertor in breathing, and latterly disposition to coma, and as she had complained of pain in the head, I thought it advisable to examine the state of the brain; and the following is an account of its dissection.

On removing the skull-cap, the external surface of the dura mater appeared to be in a healthy condition: it was therefore (being divided on a level with the section of the skull all around, except at its posterior part) thrown, along with the falx, in the usual way, backwards over the occiput. The other membranes being now exposed, several circular spots of a white milky colour, and varying from about the size of a mustard-seed to that of a seven-shilling piece, were discovered scattered irregularly in several places over the surface of the brain. They lay chiefly in the furrows between the convolutions of the middle and the posterior lobes, although some smaller ones were found over the convexities of the convolutions, and a few of a middle size and bluish white colour on the anterior lobe of the right side. On the same side, and in the direction of the corda silvii, lay six of the largest kind, of a darker hue than the others. Upon raising the tunica arachnoides, which was done with difficulty, I clearly ascertained that these vesicles were situated between that membrane and the pia mater; and what appeared remarkable was, that they seemed to have little connexion with either, for I could easily raise them entire upon the end of the knife. They appeared to be surrounded with a thin membranous covering; and when pressed between the finger and thumb, a quantity of fluid like cream, but of a darker colour, and more viscid consistence, intermixed with streaks of blood, was effused. Having ascertained every thing concerning these bodies that I thought worthy of notice, I now proceeded, in the usual manner, to dissect away the substance of the right hemisphere, on a level with the section of the cranium, in order to expose the centrum ovale minus. The brain cut very well for about one third of the length of the hemisphere, but when I had reached to about the beginning of the middle lobe, an effusion of dark bloody fluid made its appearance. Carrying the division backwards, I brought into view a horizontal section of a circumscribed dark purple-coloured circular body, of a homogeneous appearance, which, upon being washed, appeared well defined at its margin, enveloped in an inflection of the pia mater, and encircled by a thin layer of cineritious matter. It was, therefore, though apparently in the very centre of the medullary part, in fact exterior to the pia mater and cortical portion of the brain. Upon more particular examination, I observed that this collection of morbid matter extended inwards, from the situation of the corda silvii, where I had observed the largest and darkest-coloured of the small bodies upon the surface, and that it was fairly encysted; the sac being composed, as I have said before, of a prolonged duplicature of the pia mater; also, that that part of this membrane which surrounded it was opaque, thicker than natural, and painted in all directions with red vessels. This body in appearance was very similar to the spleen, although its substance was less compact, and its texture more delicate. Having examined the tumour in all directions, and ascertained every thing I could possibly discover, I proceeded, with considerable expectation, to open the lateral ventricles, which, notwithstanding the previous dissection, still remained entire. They contained each a small quantity of aqueous fluid. The fornix was now divided at its anterior crura, and the velum interpositum, which exhibited a most beautiful appearance, exposed to view. The whole of it, but particularly the plexus choroides, was distended with vessels almost to bursting, and what are usually imagined to be hydatids, were clustered in great numbers round the latter part. I continued to dissect downwards, but could discover nothing further unnatural, except that the peduncles of the pineal gland were unusually large and prominent.

The above case would seem to point out the fallacy of *à priori* reasoning in medicine; for, if we except the stertor in breathing, and inclination to coma, every appearance was nothing more than the usual symptoms of idiopathic fever. The increased activity of the circulation, and particularly the state of the bowels, were conclusive proofs of this, and indicated the use of purgatives. Such being the case, the extensive disorganization discovered in the brain, deserves our particular attention; and, with respect to it, it would occur to one at first sight, that one of two circumstances must have taken place: either that part of the brain which formerly occupied its place, must have been gradually absorbed and carried out of the cranium into the system, in proportion as it increased in size,—or the brain must have endured such compression as this unnatural tumour must unavoidably have occasioned, and supported its own structure entire, and the performance of its various functions little impaired, during such existing circumstances. The latter of these is at variance with our observation of what happens in other similar circumstances; for insensibility and death are the usual consequences of compression. The former corresponds with what we see daily occur in other parts of the system, and is the only satisfactory way of accounting for the growth of such a body, in such a place, unless we suppose that this morbid matter existed from the child's birth, and had been coeval with the formation of the other parts of the brain, which is highly improbable. Indeed, I am inclined to believe, that this tumour had been at first similar to those found on the surface of the brain, and had increased more rapidly than they, from its situation having offered less resistance than was presented to them. But, that such a collection could have formed, not only without destroying the person, but even without disturbing the functions of the brain, is very remarkable, and is another proof, that the greater part of the substance of this organ is by no means essential to life, but is merely subservient, in some manner or other, to the more important parts. The white bodies found between the tunica arachnoidea and pia mater, are not new in their occurrence; they have frequently been found in dissections of fungus hæmatodes of the eye; and this circumstance, together with the appearance of the body found in the right hemisphere, induce me to think that this child laboured under a modification of that formidable disease. If so, it would appear that no part of the body is exempt from its attacks, since it has been found in almost every individual viscus, and as this case would seem to show that the delicate brain itself is liable to be affected with it.

V.

Account of Unusual Conformations of some Muscles and Vessels. By Alexander Ramsay, M. D. Lecturer on Anatomy, Edinburgh. *(With an Engraving.)*

As most of the important circumstances connected with surgical operation, seem capable of demonstration, it appears surprising, that so many topics ranking under that useful art should for any time continue desiderata. Sixteen years ago, when I began lecturing on anatomy in Edinburgh, I showed my pupils, that the same anastomosis which insured success in popliteal aneurism, promised hopes in critical cases,, in the femoral region, or even within Poupart's ligament. This has lately been executed by British surgeons, with complete conviction of its efficacy and safety.

Permit me, through the medium of your useful work, to notice, that the rule I have invariably adhered to, of having the arteries of every subject injected, which have come into my rooms in Edinburgh, or the colleges abroad, to which I was invited as teacher of anatomy, has not only familiarized my pupils to the usual distributions of vessels, but likewise to those varieties which are supposed rare, and to others which are truly unfrequent, though important to be known and recollected. Even varieties in muscles seem sometimes connected with consequences not known. I shall mention a few circumstances connected with these subjects.

In the year 1795, I discovered a transverse muscle of the axilla, which may account for the liability of some subjects to swelling of the axillary glands on occasions of violent exertion. This body is composed of an oblong muscle, stretched from the pectoral muscle to the latismus dorsi and teres major, which, in its violent contractions, must prove inconvenient to the axillary arteries, veins and nerves which lie within this muscle. It was not known in Edinburgh or London, when I demonstrated it, and is now detected in one of thirty subjects, when dissectors are attentive.

That the ulnar artery is often placed superficially (and not deep-seated in all cases, as books in general mention), is well known to anatomists, but not universally to practitioners, who might be surprised, in some cases, at the profuse hæmorrhage which takes place, when a wound has exceeded the corpus adiposum and fascia.

The distribution of the vessel, b, Fig. 1st, seems not frequent, and accounts for fatal hæmorrhage in the operation for paracentesis. It is surprising that practitioners seem never to have examined such cases after death, and that surgeons have rather adopted the new method of operation, from experience of the occasional danger connected with this operation, than a conviction and knowledge of the vessel injured in such cases. Fig. 1st, a, is the external iliac artery. Here the circumflex, cc, is not sent off as a principal trunk, but is a branch of b, a large ascending artery, exceeding the diameter of a crow-quill, which passes in the course of the trocar. In this subject, this distribution was found on the right side only; but it occurs occasionally on both sides. The symptoms of gradual sinking after the operation, which has been known to continue for 3 days, and terminate in death, ought to warn practitioners of the possibility of the presence and section of this artery, which is easily taken up, as it lies (so far as my observation goes) between the external and internal oblique muscles of the abdomen. This vessel seems to occur once in 200 cases, were I to conclude from those I have met with; though this artery, upon a small scale, may be detected often, and seems the cause of the bloody tinge which occasionally appears in even successful operation. d, Is the epigastric artery which sent off, e, the obturator artery, a circumstance much more frequent than I find is credited; and so far as this has influence in operations, practitioners ought to be aware of this frequency. f, Is the superior anterior spinous process of the os ilium; g, Poupart's ligament.

Fig. 2d, exhibits an artery, e, as large as a crow-quill, which traverses the middle of the trachea to be diffused on the right lobe of the thyroid gland: this vessel springs from the common

Plans for Dr. Ramsay's paper.

Fig 1.

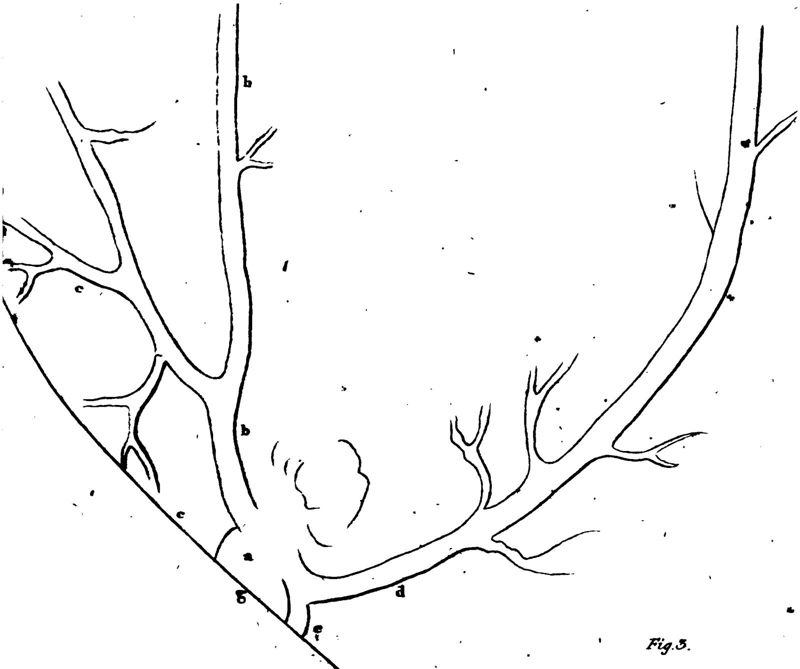


Fig 2

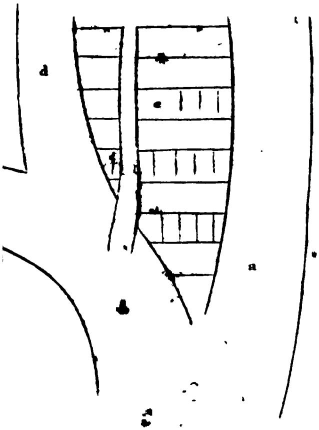
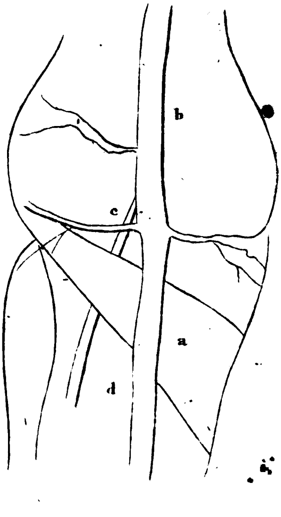


Fig. 3.



Ramsay del.

E. Mitchell Sculp.t

trunk of the right carotid and subclavian arteries; a, is the left carotid artery; b, the common trunk of the right subclavian, c, and carotid, d; e, the trachea and vessel mentioned, which is interposed where the trocar passes in the operation for tracheotomy.

Fig. 3d, exhibits the anterior tibial artery, c, sent off higher than usual from the popliteal artery, and is subjected to the continual pressure of the popliteal muscle, a; between which, and the tibia, d, this unusual distribution passes to its destination. Is aneurismal affection excited by such circumstances?

Infirmary Street, Edinburgh,
April 15*th*, 1812.

VI.

On Painful Subcutaneous Tubercle. By WILLIAM WOOD, Esq. Member of the Royal College of Surgeons, Edinburgh.

THE disease which forms the subject of the present communication has not, so far as I know, been mentioned in the writings of any systematical or practical author, although it is not a very unfrequent occurrence, if I may judge from the number of cases which I have had an opportunity of seeing within the last twelve months. It appears to me to be well worthy of attention, both from the severe suffering which it causes to the patient, and from the singularity of the symptoms to which it gives rise.

The disease to which I allude, consists in the formation of a lump or tubercle, of a peculiar nature, in the subcutaneous cellular substance. This tubercle is met with in different parts of the body, but most frequently in the extremities. It is extremely small, generally of the size and form of a flattened garden-pea; and in none of the cases of which I have been able to procure a distinct account, larger than a coffee-bean. It is of a firm consistence, and is apparently quite circumscribed, being situated loosely in the cellular substance, immediately under the integuments, which retain their natural colour and appearance.

In the greater proportion of cases, there is no visible appearance of disease whatever, and it is only when the surgeon applies his finger to a particular spot pointed out by the patient, that he becomes sensible of the existence of the tubercle. In some few cases, however, although small, it is so superficially seated as to form a visible prominence.

As in all the cases with which I am acquainted, the tubercle had attained nearly its full growth before its presence was detected, I am unable to say, whether it is originally of slow or of rapid formation, but having acquired a certain size, it remains nearly stationary, undergoing hardly any perceptible increase of bulk, even in the course of a great many years; nor does it ever show any tendency to affect either the skin or surrounding cellular substance. In one only of the patients whom I have seen, or of whose disease I have procured an account, has there been found more than one of these tubercles, and in that person there were present no fewer than three at the same time.

Trifling as the diseased part is, in point of size and appearance, it becomes the cause of very severe and even of excruciating pain. So strongly is this pain represented by the patients, that we might be apt to amagine their statement exaggerated, did we not find them all concurring in the same representation, and most of them willing to submit to any operation that may be necessary to remove the cause of their pain. Two women in the lower rank of life came to me, even from a distance of above 30 miles, to have a consultation about this disease; and both of them expressed their willingness to submit to any temporary pain, however severe, which might remove their complaint.

The pain to which this disease gives rise, is extremely acute in the tubercle, and extends from it to a considerable distance along the neighbouring parts; it is not constant, but occurs in paroxysms. In general, at the commencement of the paroxysm, the pain is slight, but gradually increases till it becomes excruciatingly severe, and it goes off in the same gradual manner, leaving the parts in the neighbourhood of the tubercle, for some time afterwards, sore to the touch, as if they had been bruised. The paroxysms vary in duration from ten minutes to upwards of two hours; but they seem to increase both in frequency and severity, in proportion to the length of time the disease has existed.

Some of the patients have occasional intervals of ease for days or even weeks; in others, the paroxysms occur several times in the course of one day. They generally come on spontaneously; but in one of the cases which I met with, they were sometimes induced by the friction of the clothes along the surface of the tubercle. They frequently attack the patient when asleep, in which case he is suddenly awoke by the severity of the pain.

The degree of pain produced by touching the tubercle is different in different cases, all the patients whom I have examined allowing it to be freely handled, *in its ordinary state*, without feeling much uneasiness, but complaining of great aggravation of the pain, from either the tubercle or surrounding skin being even slightly touched *during the paroxysm*. Acute pain is produced at all times, by the tubercle being accidentally struck against any hard substance. One lady, of whose case I shall give a detailed account, conceives that the sensibility of the tubercle is materially affected by every change in the weather, whether from heat to cold, or from cold to heat. Several of the patients have stated, that they are sensible of an increase in the size of the tubercle *during the attack of pain*, and some of them have occasionally observed, at the same time, a degree of discoloration of the skin covering it, which became of a purplish or bluish cast; and although I have had no opportunity of ascertaining the truth of these statements from my own observation, I have no reason to doubt their accuracy.

It is a singular circumstance, that in all the cases which have come to my knowledge, with perhaps one exception, this species of tubercle occurred in females. It does not appear to be confined to any particular age, but it is frequently met with at an early period of life, and I have known it remain nearly unchanged for upwards of eighteen years.

From the very severe, and almost constant suffering to which the patient is exposed, the tubercle frequently becomes the subject of operation; and fortunately it may be extirpated with perfect safety, no unpleasant symptom having ever, so far as I know, been produced by the operation. The patient becomes free from all pain and uneasiness as soon as the tubercle is removed, and, so far as experience yet goes, there seems to be no tendency to a return of the disease. In removing the tubercle, it is found to be quite detached from the integuments, and to be but loosely connected with the surrounding cellular substance, both of which are, to all appearance, perfectly sound. From this circumstance it is unnecessary to take away any portion of the skin, and only a very inconsiderable quantity of the cellular membrane. The wound frequently heals by the first intention; and, even in those cases in which suppuration takes place, the cure is seldom prolonged for any considerable length of time. On dividing the tubercle with the knife, after it has been removed from the body, it is found to be of a pretty firm consistence, and it exhibits an uniform structure, somewhat resembling cartilage in appearance, but it is by no means so hard.

I shall now proceed to give a detailed account of the cases from which the above history of the disease has been drawn up.

Case 1.—Miss ———, a lady of about 30 years of age, consulted my father, in the year 1809, on account of three tubercles, rather smaller than garden peas, situated superficially under the integuments over the upper part of the gluteus maximus muscle. These were placed pretty near each other; they were quite moveable, and the skin covering them was of natural colour and appearance. She complained of frequent attacks of extremely acute pain in these little tumours, which extended from them to a considerable distance along the neighbouring parts. These attacks sometimes occurred spontaneously, but were frequently also brought on by the friction of her clothes along the tubercles. She was recommended to try the topical application of mercurial ointment, but this not being productive of any relief, she most anxiously desired the removal of the diseased parts. The three tubercles, along with a considerable portion of the integuments and of the cellular substance, were removed by my father, by two incisions. The wound healed by the first intention; and the lady has never since had any uneasiness or return of her disease.

Case II.—Betty Hunter, a poor woman, above seventy years of age, came in autumn last from a distance of above thirty miles, to have a consultation about a small tubercle of the size and form of a flattened garden-pea, situated superficially under the skin, a little above the inner side of the right knee. There was no visible appearance of disease on looking at the affected limb; the skin was of natural colour and appearance. The tubercle was quite circumscribed and very moveable. When she applied to me for advice, she said it wonld appear strange that a woman, at her time of life, should have come such a distance, on account of what would appear to me a perfect trifle; but that, trifling as the little knot might appear, it rendered her life miserable, from the excessive pain to which it gave rise; and she added, that she would submit most willingly to any operation I might propose, that would remove her disease. She informed me that it was upwards of 13 years since she first observed the little lump, and there was hardly any perceptible increase in its size since that time,—that it had not given her a great deal of uneasiness till within 18 months, at which time she had become subject to occasional attacks of severe pain in the tubercle, extending from it to a considerable distance along the thigh and leg; that, for some time back, she had had regularly one paroxysm in the course of every 24 hours, which came on sometimes during the day, and at others during the night; that these paroxysms originally continued for about half an hour, but had gradually increased to upwards of an hour and a half, and had become excruciatingly severe. She enjoyed perfect ease in the intervals between the paroxysms. She never perceived, at any time, any alteration in the colour or appearance of the skin. She allowed the tumour to be freely handled, without complaining of much uneasiness.

Having pinched up the tubercle, I cut it out, along with a portion of the integuments, and afterwards removed a quantity of the contiguous cellular membrane. Partly from having removed so much of the cellular substance, and probably in part from the languor of the circulation at her advanced period of life, adhesion did not take place, and the wound assumed an indolent appearance. By means of poultices, however, and stimulating applications, it was brought into a state of suppuration, and was healed up in the course of 15 or 16 days. The skin and cellular substance which I had removed, were, on examination, found to all appearance perfectly sound. She has had no return of her disease.

Case III.—Mrs Craig, about 28 years of age, came to me in March last, from a considerable distance in Fife, on account of a tubercle of the size and form of a flattened garden-pea, situated immediately under the skin over the middle of the right leg, on its outer side. It felt firm but moveable, and the skin retained its natural colour and appearance. Above seven years previous to my seeing her, she had become subject to frequent attacks of pain in the right leg, and soon afterwards she accidentally discovered the little knot, which had undergone very little alteration in size from that time. For several years back, she had been subject to several paroxysms of pain in the course of every 24 hours, varying in duration from 10 minutes to nearly three quarters of an hour. These she said had become exquisitely severe; they frequently attacked her when asleep; in which case, she suddenly awoke in a fright, and occasionally found that she was screaming out from the severity of the pain. The pain was not confined to the tubercle, but extended to some distance both up and down the leg. By her account, the tubercle frequently became *visibly increased in size during the paroxysm*; and the skin covering it, sometimes, at the same time, assumed a purplish or bluish hue. The paroxysms had been gradually increasing both in frequency and severity. I removed the tubercle, without taking away any part of the integuments, and a very small portion only of cellular substance. At the first removal of the adhesive straps, the divided parts were found to have adhered; but there was a slight discharge of pus from the surface of the wound for ten or twelve days. She has not experienced the slightest uneasiness since the operation.

Case IV.—Mrs ——, a lady of about 50 years of age, more than 12 years ago became subject to frequent attacks of pain in the right arm, which were supposed to arise from rheumatism. On this account blisters and other remedies were employed, but without any advantage. Some years afterwards, she accidentally discovered a small lump, about the size of a small garden pea, under the skin, on the middle and outer part of the right arm. At this time the attacks of pain were frequent; the pain was very acute, both in the tubercle, and in the surrounding parts upwards nearly to the shoulder, and downwards to the fingers; these parts felt sore to the touch for some time after the paroxysm had gone off; she occasionally also felt a degree of numbness in the fingers of the right hand. She was ordered the topical use of mercurial ointment, but was at the same time recommended, if she did not soon get free of pain, to have the diseased part cut out. She conceived that she derived some advantage from the ointment; at least, after its employment, the pain no longer extended downwards towards the hand, although it remained equally severe in the tubercle itself, and in the upper part of the arm. I saw this lady a few days ago: She informs me, that she is never 24 hours free from an attack of pain, which lasts from half an hour to nearly an hour; that it is slight at the commencement of the paroxysm, but gradually increases until it becomes excessively severe; and after it has begun to abate, it goes off gradually. The pain, during the paroxysm, extends a good way up the arm, which remains sore to the touch for some time afterwards. Although she complains of no uneasiness on the tubercle being freely handled, *in its ordinary state*, exquisite pain is the consequence of either the tubercle or surrounding skin being touched, even in the slightest manner, *during the paroxysm*. She says she does not think it possible for any person who has not experienced the pain of this disease to form any idea of its severity. The paroxysms frequently awake her from sleep. There is no visible appearance of disease on looking at the arm; but when the particular spot is pointed out, a tubercle, a little larger than a flattened garden-pea, and more of an oval form, is felt rolling very superficially under the integuments, which she has never observed to undergo any change in colour or appearance. She thinks the tubercle a little larger than when she first perceived it: She informs me, that it appears to her to be increased in size *during the paroxysm*, or at least that it becomes, at that time, more superficial than usual, although never visibly prominent.

These are the only cases of the disease which I have met with in private practice. I had an opportunity, however, of seeing another case in the Royal Infirmary in the course of last summer. The patient was under the care of my friend, Mr Newbigging, one of the surgeons to that Institution, with whose permission I insert the history of the case.

Case V.—" Margaret Oliver, aetat. 29. June 20th 1811. About the middle of the left leg, over the gastrocnemius externus muscle, is a small moveable tumour, about the size and shape of a garden pea flattened, and of a firm consistence. It is situated immediately below the integuments, which are not in the least discoloured. She describes the pain as shooting from the part to the knee and upwards, at times so exquisite that she can scarcely bear it, particularly when the limb is cold, and has remained for some time at rest; it is always relieved by rubbing the part, and by the application of heat; says, that during the summer months she scarcely ever feels it, and her walking is not in the least impeded by it. Her general health has been rather indifferent for some years past, which she ascribes to her rest in the fore part of the night, during the winter months, being so frequently interrupted by the pain of the limb. When she first felt it, which is between ten and twelve years ago, the knot was about the size of a pin's head; since then it has been slowly and gradually increasing. Knows no cause for the complaint, and has used no remedies except fomenting the part with vinegar about two years ago, which procured no relief.

" June 22.—The tumour was removed to-day, which on examination was found to be about the size and shape of a garden-pea, of a hard uniform texture, and resembling cartilage. The part was dressed with strap and bandage.

" June 24.—Last night the straps were removed on account of the pain they occasioned. The edges of the wound had become inflamed, swelled, and matter had begun to be secreted. An emollient poultice was applied.

" June 30.—Had for two days slight febrile symptoms, which are now gone; leg is looking better; inflammation gone.

" July 2.—Dismissed cured."

These five are all the cases in which I have had an opportunity of seeing the patient, and examining the diseased part; but being anxious to give as full and accurate an account as possible of the symptoms and progress of this singular species of tubercle, I applied to my medical friends for information on the subject; and two of them, Professor Thomson and Mr Newbigging, have been kind enough to favour me with a very distinct account of the disease, as it occurred in patients who had come under their care in private practice. Cases VI. and VII. were drawn up for me by Professor Thomson, and Case VIII. by Mr Newbigging.

Case VI.—" Mrs A. a lady of about 33 years of age, consulted me several years ago, on account of a small tubercle under the skin, on the middle and outer part of the left fore-arm. It was about the size of a small pea, was moveable, and in general without pain. At times, however, it was so exquisitely painful, that she said she was unable to endure it. The attacks of pain came on chiefly in the night-time, and deprived her often of her sleep.

The pain at these times extended downwards to the fingers, and upwards to the shoulder. I advised extirpation, which was accordingly done, but had no opportunity of afterwards examining the structure of the tubercle. This lady has ever since continued free from pain.

Case VII.—" Mrs C. a particular friend of mine, about 57 years of age, has a small tubercle about the size of a coffee-bean, situated immediately under, and now attached to, the skin on the inside of the calf of the right leg. This tubercle is in general without pain, though at times it becomes exquisitely painful. It began about ten years ago, soon after she happened by a violent effort to rupture some of the fibres of the gastrocnemius muscle of the leg, near to the place where it is situated. This lady always feels pain in the tubercle for some time before and after changes of weather take place, whether these changes be from heat to cold, or from cold to heat. During the periods of pain, which often last for some days, the skin surrounding the tubercle becomes exquisitely sensible to a considerable distance from it; the veins of the leg swell, and the tubercle itself has a slight blush of red. I have repeatedly advised extirpation, but have not been able to prevail on her to submit to it."

Case VIII.—" A married lady, about 40 years of age, had a small moveable tumour about the size of a garden-pea, upon the outside of the right arm, a little above the elbow, seated immediately below the skin. She complained of frequent attacks of severe pain in the tumour, shooting to the points of the fingers, and to the shoulders. The duration of these attacks varied much, but they seldom lasted for a shorter time than three or four hours, and sometimes the pain was little absent for several days together. The intervals between the paroxysms also varied much, being sometimes a week or ten days, and at others not more than 24 hours. She remarked that, although the skin was of its natural appearance, and not at all elevated *during the intervals of ease*, yet it assumed a blue or purplish colour, and was visibly elevated by the tumour during *the fit of pain*. She was not aware of any cause which excited the paroxysm; but during its presence the suffering was much increased by the tumour being touched. Her attention was first drawn to the existence of the tumour, ten years ago, by the pain, which then resembled the sensation as if the part had been pricked by a needle. The paroxysms were at that time slight and rare; but in a short time they became more severe, and occurred nearly in the same degree for the last six or eight years. She remarked no change on the size of the tumour from the time she first observed it, till it was cut out about a year ago. The wound healed readily, and she has not had the slightest uneasiness since the operation."

It will be remarked, that in all these eight cases, this disease occurred in females. In addition to them, however, I have to mention, that my friend Mr Gillespie informs me, that several years ago he had an old man under his care, in Gillespie's Hospital, who had a small tumour under the skin of one of his cheeks; rather larger than a coffee-bean; that he remembers his occasionally complaining of very severe pain in it, which extended towards the eye and ear; that the pain sometimes left him entirely for several weeks, after which it would return in severe attacks, lasting with little intermission for several days. This man imagined the tumour to be enlarged during the continuance of the pain. These are all the particulars of his complaint which I have been able to procure, as Mr Gillespie had not kept any notes of it. I think, however, from this account, there can be little doubt that it was of the same nature with the disease which I have just described, and which, for want of a better name, I have denominated *Painful Subcutaneous Tubercle.*

VII.

Are those Diseases attributed to Mercurial Action on the System of the Human Body, peculiarly and exclusively generated by it?

By COLIN CHISHOLM, M. D. F. R. S. &c. &c. of Bristol and Clifton.

> " Præjudiciis falsis mens libera, facilius, feliciusque progrediatur in acquirenda vera medicinæ notitia.
> SYLVIUS.

IN endeavouring to account for the efficacy of mercury in those diseases of the human body to which it is found applicable, it must always be had in view, that its mode of action differs according to the nature of the disease, as well as the constitutional idiosyncrasy of the body labouring under it. Those animal specific poisons which produce disease by their power of assimilation as syphilitic virus, experience in mercury an antidotal quality; or a quality, which, by accumulation and decomposition, destroys the disease which the poison has produced by assimilation. This receives proof from the well-established fact, that the virus of syphilis can be destroyed only by the gradual introduction of a large quantity of mercury. The melancholy effects of this virus most certainly have proceeded from this principle having been imperfectly, or very little understood. Those diseases whose basis or proximate cause is inflammation, are acted on by mercury very differently. Often a small quantity proves sufficient, providing the salivary glands are affected by it; and it is a curious fact, that, as is the intenseness of the inflammatory diathesis, so is the quantity of mercury necessary to subdue it. It is, however, in an inverse ratio. Thus pneumonic, hepatic, splenic, nephritic, ophthalmic, vesical, lumbar, tracheal, arthritic, and even uterine inflammations, generally yield to a small quantity of mercury, if judiciously combined with depletory means, (bleeding and purging). Thus synochus, and all the tribe of remittents and intermittents, more certainly if symptomatic, which they generally are, of organic inflammation, yield in the same manner, with less employment of depletory means, more especially bleeding. Thus too typhus and pestilential fevers in general, including plague itself, are subdued by this medicine more freely administered, but without depletory means, except such as keep the bowels in a sufficiently soluble state, and lessen determination of blood to the brain, at the commencement of the disease.* In all these,

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* I do not here notice the powerful remedy, affusion of cold water, and chiefly because its curative effect in fevers, symptomatic of congestion or local inflammation, has not been sufficiently ascertained. The authority of my late highly respected friend, Dr Currie, would be amply sufficient, were it necessary to have recourse to it in a discussion which relates only to the action of mercury in the diseases mentioned. A large discharge of blood at the very onset of typhus, has, in the hands of some ingenious and judiciously bold practitioners, arrested the disease at once; and no doubt by instantly obviating the effect of determination of blood to the brain. Dr Felix, Medical Superintendant of the depôt of French prisoners at Stapleton, in this neighbourhood, most happily put this to the test of experience in the year 1809. During this year, a fever of the typhoid character, appeared very extensively among the prisoners. The principal remedy employed by this skilful and accurate observer, was depletion, by opening the temporal artery, and abstracting a large quantity of blood. This he assured me removed the disease, often without any other remedy of importance, at the end of 24 hours, if adopted immediately at the accession of the symptoms. He observed, however, that from the peculiar circumstances of the situation of the prisoners, there was more inflammatory diathesis at the commencement of this fever, than usually occurs. The circumstances alluded to, rendered the situation of the prisoners necessarily crowded, and generated in their rooms, during the night, when all were shut up, a degree of heat fully equal to 100°; which, in the morning, on opening the doors and windows, was suddenly followed by a considerable degree of cold: Want of sufficient ventilation, joined to this cause, gave rise to typhus, with organic, chiefly cerebral, congestion.

It may seem extraordinary, that arthritic inflammations are here classed among those on which mercurial action has curative effect. But it is nevertheless most true, when these inflammations attack particular organs, the liver and kidneys more especially, mercurial ptyalism most effectually removes them, and restores the patient to a state of general health, infinitely superior to what he had enjoyed before. On-the action of mercury seems to be confined to the glandular and lymphatic system; when obstruction is removed, the inflamma-

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ly three cases of this kind have occurred to me since I began practice here; but they have been of a decisive nature. In one of these, the eau medicinale d'Husson incautiously, or too long used, was the immediate cause of arthritic hepatitis and nephritis in the same patient, and I firmly believe the event would have been fatal but for the mercurial action.

I was long inclined to believe, that all the forms of hysteria depended on a local cause, and that therefore their cure might be effected by mercury carried to ptyalism. During the three last years, more especially, I have had several proofs of this; for although, in most of the cases of this disease in which I have employed mercury, there were obscure symptoms of hepatitis, which indeed at first led me to the practice, yet those of hysteria were the most prominent and the most permanent. A still closer attention to the phenomena of this disease, convinced me, that the principal local cause was cerebral compression, the consequence of morbid determination of blood to the head. This, however, as to the effect of mercury, only served to confirm the opinion my preceding observation had suggested. I am also inclined to believe, that tonics used with caution in cases of hysteria, are powerful aids to mercury. There are certain circumstances of the animal economy, suffering under local disease, which prevent or retard the action of mercury in stimulating the absorbents; and unless these are counteracted by suitable tonics, mercury will not exhibit its usual sanative effect. The circumstances I allude to, are more especially nervous excitement, and vascular as well as muscular debility, both proceeding from the nature of the disease, hysteria. This state is the atonic of Sauvages, Tom. II. p. 695, so well described thus.—"Laxitas seu atonia partium procedit à minori fibrillarum eas componentium cohæsione; sive fluidum ipsis specifice levius ipsis interpositum sit, unde tollitur proximitas ad cohæsionem necessaria, cum vis cohæsionis cubo proximitatis respondeat, hinc laxitas corporis humani nimio calore resoluti; sive appressio mutua fibrillarum deficiat ob vasorum inanitionem sive fluidi ipsas distensuri defectum. Sic intelligimus ab alvi-fluxibus, sanguifluxibus, abstinentia laxari et debilitari vasa, tum totum corpus: verum sunt aliæ laxitatis causæ ad debilitatem referendæ, impetus fluidi nervei et sanguinis est causa canales distendens; quippe fluidum duplo velocius vas flexibile trajiciens quadruplo fortius in ejus parietes agit, ergo inertia, languor, tarditas fluidi nervei nervis, tarditas sanguinis sanguiferis vasis atoniam et debilitatem conciliat." There are some general anomalous states, the prominent features of which are, violent action of the arterial coats, and equally violent and sudden nervous excitements, all proceeding from very inadequate causes, which find a ready and easy solution in the principle stated by Sauvages, and which I am convinced might be obviated by the adoption of the treatment I have here proposed. It was on this principle I lately recommended a mercurial course, with nutritious diet of animal food, to an eminent physician in this vicinity, suffering for a considerable time untory state, whether local or general, thence resulting, is obviated. Thus then in syphilis, the conversion of the animal fluids to the peculiar nature of its virus constituting the disease, the counteraction of this by an antidotal power possessed by mercury, is effected when a sufficient accumulation of that power is obtained. But in topical and organic inflammation, and fevers symptomatic of them, and of glandular congestion, mercury acts not by an antidotal, but by a stimulating power of a peculiar kind, rendering the glands and lymphatics permeable, and capable of performing their respective functions. Nor does scrofula, evidently a glandular disease, constitute any objection to this theory of the action of mercury; for scrofula does not proceed from congestion, but from weak action of the glandular system; that is, the inflammations consequent upon glandular congestion, proceed from an accumulation of fluid in the glands, or an infarction, generally the result of violence and irregular acceleration of the propelling power. Scrofula, on the contrary, depends not on obstruction from accelerated motion, but from diminished motion and energy. In the one, the cause seems to be tumultuous propulsion; in the other, unequal or interrupted retardation. It is difficult to form a lively conception of the two modes of action. The first, in short, may be likened to a swollen flood, dashing with almost overwhelming violence against the flood-gate placed to restrain it; mercury, conjoined with depletory means, to the mechanist who skilfully restrains, and finally subdues it, by opening an aperture, ptyalism, calculated for the gradual transmission of it. The second, is a sullen stagnant pool, which infects the vicinity by its poisonous exhalations; if permitted to stand, depositing filth slowly convertible into useful soil; or if drained, transmitting a turbid offensive stream. The tonic treatment, with the occasional aid of mercurial stimulus, alone applicable to the disease, may be figured by the plantations of succulent plants, skilful drainage, and filling up where drainage may

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der the state above described; and should this paper meet his eye, he will, I doubt not, recognize the validity of the ground on which I founded my opinion and advice.

With respect to the efficacy of mercury in synochus, for many years, since 1788, I have constantly and uniformly experienced what I may, without a hyperbole, call its infallibility. In the No. of the New Medical and Physical Journal of London, for September 1811, p. 390, there is a case of synochus stated very circumstantially, and which terminated fatally, the treatment of which is most lamentably deficient and inert, and I firmly believe productive of the fatal event. In this view, it is, however, highly instructive. In every protracted case of this kind, local or organic derangement should be sought for, and considered as the idiopathic disease; and the judicious adoption of a mercurial course will prove certainly curative.

be impracticable, employed for the destruction of such noxious collections. I am apprehensive, that no adequate idea of scrofula can be formed from the usual theories of its formation and existence; nor do I presume to hope I shall have more success: but, I believe, analogies drawn from familiar objects, may assist in conveying to the mind a less complicated conception of its nature and character than any other mode. Dr Morton, probably the best-informed writer on the subject, ascribes scrofula to a certain acrimony in the blood; a cause indefinite certainly, and perhaps a mode of speaking without meaning. To say, however, that this disease proceeds from weak glandular action, seems also an objectionable mode of accounting for it; for weak glandular action may more properly be considered the effect of some pre-existing cause, than a cause itself. The only way the difficulty can be removed, I apprehend, is to consider certain bodies possessed of a less perfect glandular construction than others, and that, in the former, the secretory and excretory processes are less regularly and less perfectly carried on than in the latter. This physical malconformation may be the scrofulous diathesis of Morton and other physicians; a diathesis which, therefore, may exist without the pre-existence of acrimony,—in the habit at least. Under this view of the scrofulous diathesis, the character of the disease drawn by Morton is intelligible, and enables his reader to form a very precise and adequate conception of the manner in which scrofulous affections are produced. "In scrophulosa enim diathesi sanguis ob *præternaturalem acrimoniam jam tanquam coagulatus* atque adeo novum chylum non potens perfecte sibi et partibus solidis adunire, solet eum in circulatione copiosius quam par est deponere in partes glandulosas; ubi vascula non procedunt rectis lineis, ut in musculis, verum spiratim; quo fit ut sanguis majorem remoram, et stagnationem in his quam in cæteris partibus efficeri soleat, atque adeo secretionem succi nutritii magis copiosam; quo fit quod istæ partes plusquam cæteræ intumescere et durescere aptæ sunt partæ." (R. Mortoni Opera Med. Amstelod. 1696, Tom. I. p. 110, 115). The acrimony of Morton is the occasional or extrinsic cause; malconformation the predisponent or internal, the partes aptæ natæ. [*]

If the theory, thus shortly and imperfectly stated, be admitted, it will follow, that the action of mercury on the human system,

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[†] "Hippocrates seems to have entertained pretty much the same theory of scrofula,—quum vero proprio morbo ægrotant (glandulæ) (nam parum etiam cum reliquo corpore ægrotant), morbi tubercula fiunt, et strumæ χοιραδες resultant, et febris corpus occupat. Perpetiuntur autem hæc ubi humiditase repletæ fuerint ex reliquo corpore in ipsas influente. Influit autem ex reliquo corpore per venas, quæ per ipsas extentæ sunt multæ et cavæ, ut humor quemcunque tandem traxerint facile in ipsas sequatur."—De Glandulis, C. 1.

must deviate from that which is peculiar to it, according to the idiosyncrasy of that system. If predisposition to scrofula, for instance, should exist whilst the virus of syphilis is exerting its assimilating power in the body, the indolence of the glandular and lymphatic system, constituting the essence of that disease, will be more or less obviated, in the ratio of the quantity received, by the stimulus of the mercury administered for the counteraction of the syphilitic virus; and a new train of symptoms must necessarily be brought forward, whilst those of the superadded virus may be suspended. But this is by no means confined to mercury;—any other irritant may give rise to the same phenomena. All the animal specific poisons, the poison of fish, (see Letter to Dr Haygarth, p. 109, and Edin. Med. and Surg. Journal, Vol. IV. p. 395, &c.), and many mineral and vegetable substances, such as antimony, opium, camphor, &c.

These, and other speculations on this subject, have been suggested by a comparison of the eruptive diseases, supposed to be the peculiar offspring of mercury, with others of precisely similar appearances, proceeding from other causes; and as it may be useful to enable the reader to make this comparison himself, I shall make no scruple to lay before him those features of disease which exhibit this similarity of character.

The most important, perhaps, is the kind of ulcer said to be peculiar to mercury, and thence emphatically called by Mr Mathias, "mercurial disease." This gentleman has favoured the public with a valuable and interesting delineation of the features of this disease. He opens very important views of the subject, and certainly has led the way to highly beneficial improvement in the treatment of syphilis. It is not a little singular, that, although the "mercurial disease" must have existed at all times since the free admission of mercury into medical practice, yet the ravages occasioned by the imprudent administration have been, almost uniformly, till of late, attributed to the disease it was intended to cure. Tonics have been, indeed, combined with mercury in the treatment of obstinate and eroding venereal ulcers; depletory means have also been recurred to in such cases; but both with intentions not at all connected with mercurial irritation. In fact, we have been directed to a just view of the causes of these ulcers within a few years only; and Mr Mathias has, I believe, the principal merit of making us more intimately acquainted with the subject. That such ulcerations as those described by Mr Mathias, however, are the exclusive product of the irritation of mercury, I am much inclined to doubt; but let the reader judge for himself.

Mr Mathias thus describes the mercurial ulcer. "The mercurial ulcer is commonly attended with more pain than the venereal; it is never fungous as the cancerous is, nor has it the indolence of the scrofulous, nor the putrid tendency of the scorbutic ulcer. It will often heal, and, after a time, break out afresh in the neighbouring parts; and thus it will continue to do for many months, particularly in throat-cases. Sometimes the mercurial ulcer is in a state of irritability, spreading, with much pain, in an irregular and jagged form, in all directions, upon the surface of the cutis, discharging a thin ichorous humour. Some parts of the wound, however, will appear to be healing, others will be absolutely skinned over, and this in the very centre of the ulceration; while in other places, a very angry phagedænic ulceration is going on, and a considerable degree of common inflammation attends the whole wound. Where the ulceration is making a progress, the edges of the wound look sharp, and as if they had been divided by a knife. It sometimes happens, that the mercurial ulcer is first produced by a sudden and considerable sloughing in the part. One of the striking characteristics of the mercurial ulcer is, to heal, and break out again from time to time; to heal in one part, and grow bad in another. This is neither common to the venereal, nor to the cancerous virus, whose ulcerations occupy the part affected, and spread from thence as from a centre." (Inquiry, p. 59.) This description almost precisely corresponds with the phenomena of an ulceration of a singular nature in the West Indies. This will appear by a comparison of them. The only apparent difference is in the situation of these ulcerations, and in the occasional cause, which in the West Indies is never mercury. I extract the following account of it from my journal, kept in the island of Grenada, for the year 1790.—" I do not here speak of the superficial circular congeries of small ulcers, discharging a corrosive limpid humour, all the species of which are included under the generic name, herpes; but an ulcer of a particular kind, which is perhaps peculiar to warm climates, and with which negroes, more especially those lately imported from the coast of Guinea, are more afflicted than the white inhabitants. This ulcer generally makes its first appearance, either in the form of a pimple, or a small vesicle, which, bursting, discharges a sanious matter or a limpid fluid, evidently possessed of a very irritating and corrosive quality, which shows itself by an intolerable itching, and a very speedy enlargement of morbid surface. Sometimes this ulcer originates from the irritation and pricking of external substances, which the negroes are exposed to in the course of their field-work, such as the lanugo of the sugar-cane, the spines of various wild plants, sharp stones, &c. But, I imagine these can only be called exciting or occasional, although by the planters they are considered the principal remote causes. Whatever the cause may be, the effect is the same, and always very surprising; for in the short space of eight-and-forty hours, an ulcerated surface will be formed of more than two inches in diameter. In the progress of this ulceration, some appearances take place which indicate an herpetic character; these are chiefly the corroding nature of the discharge, sometimes its colour and consistence, the creeping manner in which the ulcer spreads itself, and its leaving distinct portions of the natural colour apparently unhurt:—thus, frequently, within the general compass of the ulceration, insulated portions of sound skin may be perceived, and which may continue so during the existence of the disease. From the very commencement of the disease, the portion of the limb near and around the ulcer becomes tumid, and as the former advances, the latter enlarges; so that when the ulceration has gained a surface of six inches by three, that part of the leg will have increased fully three inches in its circumference. It is peculiar to this disease, that if its duration should be long, the limb never loses the dimension it has acquired, the swelling consolidating and becoming permanent. The ulceration is seldom deep; but I have known instances of its penetrating to the bone, occasioning a caries, and at length such a morbid state of the limb as to render amputation necessary. It frequently happens, but from what cause I know not, that the whole, or by far the greatest part of the ulcerated surface, fills up and cicatrizes in a surprizingly short time. This is, however, mere fallacy, for in the course of one night, the whole of the surface, thus seemingly whole, will be corroded in the same manner as at first, and an ulcer larger than the former, and of a more unfavourable aspect, will be formed. In proportion to the repetition of these attacks, as well as the duration of each, is the enlargement of the limb; so that limbs of an enormous size, from this cause, are not unfrequently seen, which, except the ulceration in which they have originated, have all the appearance of the Barbadoes or glandular disease of Dr Hendy." Now, as mercury could have no share in the production of it, this ulceration must have had a different source; although its nature may probably be the same as the mercurial—that is, a latent constitutional disease brought into action by an irritant. The affinity of this ulceration to Elcosis herpetica, (Sauvages, Tom. II. 610.), is evident indeed; but there are several discriminating features which manifest their want of identity. Thus, the surface of the ulcer before us is always, whether superficial or penetrating, of a bright red colour, and always without any collection of matter of any description. Thus, too, when the ulceration extends itself, no sloughing of morbid portions has been observed, notwithstanding the surprising manner in which the extension takes place; thus the sound and the ulcerated surface either imperceptibly unite, or the edges of the former look sharp and florid, and, as in the "mercurial ulcer," seem divided by a knife, and this, whether the ulceration extends or contracts, which it will do in a very astonishing and rapid manner. With the herpes serpigo, a very common, obstinate, and often distressing disease within the tropics, and all the other species of herpes, it has no other affinity but its divergent and creeping quality: in every other respect it differs from them. In short there is an identity only between it and the mercurial ulcer; and yet we can account for this in no other way, that I am aware of, than by supposing, as I have already observed, a latent constitutional disease, which in both cases is brought to light by irritation.

The nature of speculative pathology is too inconclusive, to found any induction of causes of this identity on; for those very causes must themselves be necessarily conjectural. I therefore forbear to propose those which a long residence in, and a close observation of the effects of the tropical climate, have suggested to my mind. It will fulfil the objects of medical science better, perhaps, to rest satisfied with the facts, that the same phenomena may be produced by apparently different agents; that is, that different irritants stimulating the glandular system of the human body, probably in a manner precisely similar, that system suffers conformably, as appears by the effect being alike: and that it seems reasonable to conclude, that those irritants could not produce such effect, and such phenomena, had there not been a pre-existent disease in the system, whose seminia have been thus excited into a state of activity by their stimulus. It is on this principle alone, I presume, that the "mercurial disease" can receive the designation of specific. (Mathias, p. 40, 72, 194). It is an irritant, exciting the peculiar action of a specific latent disease. One of the most acute observers of the phenomena of disease, has applied this remark to scrofula. He tells us, the disease may exist in a latent state in the system, "a pueritia usque ad senectam ætatem," and yet the person live with comfort, if nothing occurs to render it active; but let the slightest cold, (a minimo percepto frigore), and indeed, scrofulous habits are particularly susceptible of it, (cui etiam præter cæteros obnoxii sunt), for instance, be applied, and instantly all its features become obvious; fever and all its concomitants are produced, and finally terminate in incurable phthisis. In such a case, cold acts precisely as mercury does in the mercurial disease, or perhaps hyperoxygenation, in the ulcer described of the West Indies. The same judicious, and accurate physician, makes another most important observation, which is amply justified by experience, and which strengthens the proposition I am contending for, viz. when the scrofulous diathesis has been brought to light, and has been subdued by suitable treatment, then the subject of it will ever after enjoy a more perfect health than at any preceding period. But not unfrequently the tumult, in cases of scrofulous idiosyncrasy, when irritants are introduced into the system for purposes very opposite, is most dreadfully alarming. There is no doubt, as Morton observes, the scrofulous diathesis may remain latent and quiet in the system, during the whole lifetime of the person in whom it exists; but let it be roused by stimulation, and the effects may prove fatal. Several instances of this, happily with curative result, have occurred to me within the last two years, of which, however, a detail here would be altogether irrelevant. It may not be out of place, to observe, that, in such cases, the determination of blood to the brain is the most prominent and most distressing symptom, and that saturation of the system with mercury is the remedy most to be relied on, or rather, which alone proved effectual in restoring the balance of the system. As this declaration may be deemed extraordinary, and as such a mode of curative treatment is certainly no part of the routine practice in such cases, I may take leave to be a little more particular. A gentleman thus circumstanced, that is, who had laboured under a scrofulous diathesis all his life, which occasionally, during many years residence in the East Indies, showed itself in extremely loathsome eruptions, but which gradually subsided, by leaving nature undisturbed, only aided by the climate, perceived, some time after his return to England, the precursory symptoms of an attack of this kind, about a time when he was on the eve of marriage. Anxious to prevent the eruption of the disease, he employed some irritating means, the particular nature of which I am not acquainted with. The eruption was prevented, but a train of symptoms of the most distressing and melancholy nature immediately ensued. Determination of blood to the brain was the more immediate consequence; apoplexy soon followed, which not terminating fatally, he fell into a state of amentia, or imbecility and unconsciousness. He slowly recovered by freedom in bleeding and purging, and mercurial ptyalism. A case of latent scrofulous diathesis, in which the same train of phenomena was excited by cold, has very lately occurred to me in a young woman of seventeen. In this, superadded to, and alternating with amentia, there was complete catalepsy. Topical and general bleeding, assiduous attention to the bowels, and above all ptyalism brought on by mercurial frictions, restored her at the end of near four months to a tolerable state of health. In the first volume of the American and Philosophical Register, published at New York, I have given a very singular instance of constitutional scrofula, assuming periodically the pustular or more properly the *bullated* form, excited remotely by the injudicious employment of mercury, and immediately by the irritation of cold. This case seems very much in point, as it gives a very satisfactory view of the latent scrofulous diathesis; the agency of irritants, more especially of mercury, in hurrying it into form and activity; the variety of eruptive character given to it by that agency; and the complete efficacy of the most appropriate tonic, arsenic, in such cases. This naturally leads to the consideration of the eruptive form of the disease, supposed to proceed exclusively also from the irritation of mercury, viz. what has been called erythema mercuriale, eczema mercuriale, mercurial lepra, and hydrargyria.

It is obvious to remark, that if the same phenomena are produced by other agents, it will necessarily follow, that they cannot be deemed the exclusive offspring of mercury. The case is the same as the former, only the form of the disease is changed. In the one, we have seen it is ulcerous, in the other it is papulous; in both it is eruptive, in both it is the effect of the stimulus of an irritant bringing into a state of activity a latent disease, or a constitutional morbid diathesis, which, if undisturbed, might never molest the subject of it. If it be asked, why the same stimuli will in one case produce ulceration, and in another eruption of minute pustules, whilst in both the quality or nature of the diathesis on which they thus act is the same? I confess my ignorance: I cannot give a satisfactory answer. Like many other phenomena in nature, we are conscious of their existence, but are altogether incapable of accounting for that existence. Let us rest satisfied with the fact, and to that I now proceed.

The case of erythema, detailed by Dr Rutter, (Edinburgh Medical and Surgical Journal, Vol. V. 143.), is one in which the irritant was cold, and of which the phenomena were those which are said by other writers to be peculiar to mercurial irritation. This is a very important, and a very instructive case, and is illustrative of Dr Morton's remark on latent scrofula, already quoted, as well as of the principle, that there are other irritants besides mercury, which are capable of exciting, and actually do excite the disease, in all its forms and violence.

There is also a very instructive case of Erythema, unconnected with mercurial action, published by Dr Marcet of London, in the 2d volume of the Medico-Chirurgical Transactions. The subject of this case was a gentleman of about 30 years of age. The complaint recurred at irregular periods from the age of 16. It seems, therefore, to be constitutional, and not dissimilar to the case of a gentleman from India I have generally stated in the preceding pages, before his return to England. In its mode of attack, it is not unlike the case of scrophula periodica I have referred to (see 1st vol. Medical and Philosophical Register of New-York; p. 451.) Every part of the body in Dr Marcet's case, was affected, in the most severe paroxysms of the disease; but in general, the hands, feet, ears, and lips, were the parts mostly affected. The fit was preceded by a *twinging* sensation at the pit of the stomach; but without nausea, fever, or even loss of appetite. On the second and third day, a vesicular eruption, extremely minute, broke out; when the swelling abated, the cuticle began to crack, and to rise in patches, discovering an inflamed surface, superficially ulcerated, and discharging offensive matter. In a day or two after, the cuticle fell off in large patches, like the outer bark of the plane tree when casting its bark. In about three weeks the disease disappeared. The most remarkable circumstance is the disease having been in this instance apyrexious, and its attacking two or three times in the year apparently without cause. In the attack which Dr Marcet chiefly witnessed, the disease "was preceded by, and obviously connected with the patient's having been exposed to a severe shower of rain." The patient had been free from the disease for two years previous to this last attack in May 1810. Upon the whole, it is evident, I think, from the history of the case, that the disease was a constitutional one, I imagine scrofulous, and excited into the eruptive state by irritants, chiefly cold.

Only a few cases have occurred to myself, more immediately illustrative of this subject, but they may perhaps be deemed satisfactory.

In the month of September 1810, an eminent merchant of London, being on a visit to Clifton, consulted me for some slight catarrhal complaints. Before I prescribed for him, he told me his constitution was a very singular one, for that at two preceding periods of his life, some years distant from each other, a few grains of calomel had been given to him with very extraordinary effect. He described his situation on those occasions as particularly distressing. His whole body swelled, and the skin became bright red, and soon after an eruption of minute pustules broke out. His pulse was upwards of 120; delirium came on; and a fetid discharge from the eruption. The whole lasted near three weeks, and then terminated in complete denudation of the cutis. He did not recover from either of these attacks, he added, for more than two months, during the whole of which time his mind suffered dreadfully from depression, which he could attribute to nothing but the disease. He unfortunately, in this detail, forgot to inform me that he had had a third attack, equally violent, from the use of antimony. This I learnt from him after the mischief was done. I directed, from his present catarrhal complaints, a gentle diaphoretic, the principal ingredient in which was antimony. On the following morning I was sent for in great haste, to see my patient, who was said to be dangerously ill. He had taken the diaphoretic, but no perspiration resulted from it. I found his whole body as red as a boiled lobster; an universal eruption of very minute but distinct papulæ broke out; his limbs, particularly the thighs and face, swelled considerably, and were of a pungent heat; his pulse was 110; his eyes intolerant of light; and not a particle of moisture could be perceived anywhere on the skin; his mind became excessively depressed, so as to occasion a plentiful flow of tears, and expressions of alarm and despondency. Purgatives, and cold infusion of bark, acidulated with the vitriolic acid, removed the most distressing symptoms in about ten days, when he was enabled, with some difficulty, to attempt a journey to London. I had a letter from him sometime after, in which he transmitted to me a portion of the exfoliated cuticle, like gold-beaters' leaf; and informed me that in the progress of his recovery his whole body suffered complete exfoliation of the cuticle, leaving the surface red, tender, and for a long time intolerably itchy. Perseverance in the same means at length restored him to health. I recommended a course of muriate of lime, and a strict adherence to a diet of animal food. He has continued well ever since. He has not, however, I believe, subjected himself to the test of an irritant.

In another case which occurred in the month of October 1811, the stimulant or exciting cause was opium. The patient, a young woman of about 26, of a remarkably sallow complexion, rather delicate form, and subject to a discharge of a very fetid nature from behind the ears, complained of excruciating pain in the right temple, unattended with any symptom of inflammatory affection, and which she herself attributed to cold. Observing nothing which could lead to any other conclusion than that she laboured under some degree of rheumatism in the temporal muscle, I directed her to keep her head warm, and to take a powder composed of pulv. ipecac. comp. gr. v. and camphor gr. iij twice or thrice in the day, with a mild aperient occasionally. The second day after she began the use of this medicine, her face swelled enormously, and a papular eruption appeared on its surface. The following day this extended to the neck, breast, back, and arms. The next day (4th from taking the medicine) her whole body was swelled, red, and covered with the same eruption. The papulæ were lymphatic at first; but soon drying, they became scabs, very offensive in colour and odour; under the scabs or eschars fetid matter accumulated, which throwing off the eschars, formed disagreeable and troublesome little ulcers. Fresh crops of papulæ daily took place, so that the distress of the patient became excessive; for joined to the actual pain she suffered from inflammatory distension, the very offensive discharge from the surface, the want of sleep at night, the thirst, and other symptoms of febrile action (pulse generally 120), her mind became a prey to despondency. As in the former case, by means of purgatives and infusion of bark acidulated, with embrocations of the linimentum aquæ calcis, Ph. Ed. which had a most soothing effect, she recovered. But there is a circumstance of interesting import in this case which must not be neglected. About the 9th day of her illness, the patient had taken, with a view to ease the pain and promote sleep, a draught at night, in which were twenty-five drops of tinct. opii. The effect was precisely similar to the first attack brought on by the compound powder of ipecacuanha. She felt the whole surface of her body as it were on fire (fervida eruptio); a considerable fresh eruption took place, with swelling of the face, more especially, to such a degree as almost to close up her eyes. A purgative on the following morning gave her almost instant relief. It was not until the end of November, or nearly two months from the first attack, she was completely restored to health.

A third case occurred soon after, the symptoms of which were milder, but equally well marked. A gentleman about 40 was seized with synochus, in a form by no means severe. After the usual evacuations, he took a powder composed partly of the pulvis antimonialis. In the course of the following night, his body became excessively red, a swelling ensued, and an eruption of a papulæ was soon after thrown out. Without paying much attention to these symptoms, I treated the disease as mild synochus, and he soon recovered. But a very general exfoliation of the cuticle took place; and, for a length of time, such a depression of mind, and such a degree of debility were superinduced, as could not be accounted for as the effect of the original disease. *

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* The following is a very singular instance of the efficacy of stimulus, even of a very violent nature, in removing obstructions in the lymphatic system, and giving a proper direction to the accumulated fluid to the emunctories prepared for its discharge from the body. It is not indeed immediately illustrative of the subject of this paper, but it may be considered as bearing an affinity to it; and as an object of curiosity and utility, I trust it may prove acceptable. The accident happened to a very respectable and valued friend, who very lately favoured me with the following very curious and interesting narrative :

I shall close this part of my paper with a few observations on the nomenclature of the diseases which are the subject of it.

"Dear Sir, *Clifton*, 6*th May* 1812.

"As you have expressed a wish to know the particulars of my recovery from a dropsical complaint, I shall relate the circumstances, as distinctly as I can recollect. It is unnecessary to mention the origin or progress of this complaint, further than that I came home from the West Indies in the autumn of 1787, caught a cold on my journey down to Scotland, and soon after got into very bad health. Finding I received no benefit from the Edinburgh medical gentlemen I consulted, by their advice I went to Bath in April 1789, in a very weak state; and immediately on beginning the use of the water, my legs began to swell, which, for six or seven weeks I remained there, gradually increased. From Bath I went to Tunbridge, and from thence to London; the swelling still increasing, and the belly much distended. In October I was tapped, and two gallons of water were taken from me. I then began the use of mercury, both by rubbing and taking inwardly, with frequent dozes of rhubarb and cream of tartar; but notwithstanding these, I swelled nearly as large as before, when it was again proposed to tap me; but I would not agree to it, having a wish to send the water in its right course. In March 1791, I went down to Teignmouth in Devonshire, where I lived for some time, but receiving no benefit. Here I was in the habit of riding on horseback daily, although not able either to mount or dismount without assistance. One day I had been set on horseback, as usual, and proceeding along the hard beach, when something made my horse start, and losing my balance, I fell on the hard sand just on my rump. You may believe I was a good deal stunned; in fact I was rendered insensible by the shock and blow; but, in a few minutes, recovered so far as, with the assistance of my servant, to crawl home, about two hundred yards distant. I felt so much pain from the contusion on my rump, I was obliged to go to bed. I was very hot, and I believe feverish for some time after going to bed, till, in the course of the night, a profuse perspiration relieved me, and I felt as usual in the morning, only my rump very painful, and it continued so as I could not sit for a week with any ease. I had not perspired for months till this accident happened; but for some time after I had abundant perspirations every night. About ten days after the accident, I got free from the pain, and felt better every way. I now set out for Plymouth, and after travelling a few miles, I was obliged to get out of the carriage to make water, and discharged a large quantity of almost milk-coloured urine, which was the first unequivocal, I may say indeed the first symptom, of the water passing off in the right course, I had perceived, I may say, for years. From Plymouth, I came to Bristol, and thence proceeded to London, having daily frequent and large discharges by urine and perspiration, and continuing to make use of mercury with rhubarb and cream of tartar as before. From the mo-

With respect to the ulceration, I can perceive no just reason for the exclusive appellation "mercurial disease" to it, seeing there is cause for believing that mercury is not the only irritant capable of producing it. I feel rather disposed to employ the word *Elcosis* with the adjunct *Erithistica*, which indeed is almost the epithet given to it by Mr Mathias, omitting the word mercurial, for it is an *ulceration from irritation.* Now as to the eruption; the words *Erythema* and *Eczema*, singly, do not by any means seem expressive of the whole character of the eruption. It partakes of both, and cannot, with any appropriation of sense, be designated by one only. Eczema certainly, of the two words, gives the most significant idea of the disease; but it does so only as to the mode of eruption. The eruption is red, but so are many others. The eruption is wonderfully rapid, fervid, of a burning heat, and intolerable itchiness; but an eruptive disease may be so, and yet be destitute of a red colour: An union of the two, therefore, seems to give the most complete and definite idea of the disease, if the appellative common to the eruptive and ulcerous forms of the disease is added. Thus the ulceration may be denominated *Elcosis crithistica*, and its species or varieties designated by the name of the irritant peculiar to each; mercurialis, hyperoxygenosa or intertropica, a veneno, &c. And thus too the eruption may be distinguished, *eczema*, *ereuthron*, *erethisticum*; and its species or varieties, mercuriale, antimoniale, ex opio, e camphora, a veneno, a frigore, &c. My view, in thus attempting to define these two diseases by a characteristic nomenclature, is most fully expressed by the very ingenious and learned critic on the "Hydrargyria of Dr Alley." "The appropriation of the term *eczema* to the profuse eruption of minute vesicles originating from irritants, and not the result of previous fever, according to Dr Willan's method, seems to be convenient and advantageous. It is convenient, because it expresses to the learned something of the nature of the eruption; and it is advantageous, in a systematic view, because it comprehends several varieties of

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ment this change took place,—in consequence, I have every reason to think, of the accident at Teignmouth, for no change whatever had been made in the medicines I took after from those I took before it,—I got better daily, the swelling decreasing daily and gradually. I returned to Scotland in June, and soon after got free from all complaint, except the swelling in my legs, which continued for some months.—In the month of October I sailed from London for Cadiz, and spent the winter in that part of Spain, which confirmed my health completely; and I have never since had any appearance or threatening of the complaint. I am, &c. J. H."

"Dr Chisholm, Bristol."

the same sort of eruption, resulting from different exciting causes."—(Ed. Med. and Surg. Journ. Jan. 1812. p. 102.)

Having been led, in the course of the foregoing discussion, to take a near, and, I trust, an unprejudiced review of my own practice and experience, for a great many years, in the use of mercury, I cannot quit the subject, without expressing my sincere regret, that some physicians, who have long and justly maintained a high rank in the medical world, have of late indulged in invective against the use of mercury. This, it is evident, is ill-judged, whatever the motive may be. I am free to say, however, that it is the duty of all liberal-minded physicians, and indeed of all good men, to check such effusions, when their tendency, as in the present instance, is to injure medical practice, by creating unfounded and unjust prejudices against one of its most valuable and active agents; and, in general, to discountenance all those remarks on important practical points of medicine, which have not at least for their basis, purity of motive, and rectitude of intention. Happily for mankind, indeed, remarks sent into the world on any other basis, generally bear within themselves their own refutation, however imposing the authority may be by which they are promulgated and supported. Far be it from me to attribute them to any sinister view; but assertions, such as, that mercury is injurious in European hepatitis; pernicious when febrile excitement is present; sometimes fatal in syphilis;—that it appears to destroy the energy of the nervous system, producing weakness, tremors, palsies, fatuity, and mania;—that it induces gangrene; and, in short, that no part of the human body is exempt from its deleterious action; the liberal and *truly experienced* (see Zimmerman) physician, will reject, as proving too much. For my own part, I can, with the most precise regard to truth, say, that my own experience in the use of mercury, and I believe few have used it with more freedom, goes to the establishment of a doctrine the very opposite. That mercury may do mischief, when injudiciously or indiscreetly employed, is a proposition which experience of the most decided nature proves the truth of; but I must repeat, that the unqualified assertion, that in all cases (and the invectives seem to embrace all) wherein it is administered, its tendency is materially to injure or to destroy life, is neither proved by experience, nor warranted by any rational principle of theory; but I mean not to asperse, nor to individuate, when I say, it may generally be considered as the result of an indolent and negligent pathology, as connected with climate more especially; or of unreasonable or pernicious prejudice. The immense advantages accruing from a spirited and judicious employment of mercury in all countries, and climates, during the last twenty or thirty years, in the diseases to which it is applicable, are so very generally known and admitted, that a refutation of such vague assertions as those which have been made in some late publications would seem unnecessary, did not authorities, certainly very respectable, and to which many of the profession have been accustomed to give up their judgment, seem to sanction them. Except in as much as the public good is concerned, I feel myself perfectly upheld in declaring—

> Quæ cuique est fortuna hodie quam quisque secat spem
> Tros Rutulusque fuat, nullo discrimine habebo.

Bristol, 20*th May*, 1812.

ADDENDUM.

There is a passage in Dr William Saunders's "Observations on the prevalent Use of Mercury in the Diseases of this Country," which, to a person ignorant of the real state of the question, would necessarily lead to very erroneous conclusions. "It does not appear, says he, that if we except the hepatic diseases of India, the mortality of the *endemic* fevers of other countries has been diminished by extending the use of mercury, except as uniting mercury with other purgatives," (p. 42.) And as a proof of this, he quotes a passage from my essay on the malignant pestilential fever, giving only the simple fact, without searching for the explanation, which a very little trouble would have presented him with. Dr Saunders, in using this fact as a proof of the correctness of this remark, seems to have forgot altogether that the fever in this instance was not "*endemic*" but *pestilential, and the product of imported infection.* The relevancy of his proposition is therefore lost, as far as it relates to the malignant pestilential fever. The passage in the essay properly stands thus, (p. 96 of the first, and vol. 1. p. 132, 2d ed.) "Of 84 people belonging to the Ordnance department at that time (1793), about 56 were seized with the disease (M. P. fever), before the 1st of July; and of these, five died; a trifling mortality, considering the nature of the complaint. All these men, however, had been about three years in the country, and consequently suffered less from the disease than about 27 recruits who joined the artillery in July. Of 26 of these unfortunate men who were infected, 21 died before the middle of August; a dreadful instance of its peculiar tendency to prove fatal to strangers to the climate." The cause of this remarkable, and, indeed, singular instance of mortality from the M. P. fever, besides the nuper adventus of the subjects of it, appears in p. 128. of 1st ed. and vol. 1st. p. 180 of 2d ed. "Most other diseases degenerated into, or partook very much of the nature of this. Dysenteries suddenly stopped, and were immediately succeeded by symptoms of the pestilential fever. A remarkable instance of this occurred in the month of July 1793. About the beginning of the month, 27 recruits joined the detachment of royal artillery in this island. These men formed part of the artillery, which, with other troops under the command of Major-General Bruce, landed on the island of Martinico about the middle of June. During the three days they remained on shore, they were encamped, and almost the whole time exposed to very heavy rain. Dysenteries were the consequence; and most of them, on their arrival here, were immediately admitted into the royal artillery hospital; where, at that time, as has been already observed, there were many cases of the pestilential fever. The apparent effect of the medicines they took, very much surprised me; but I soon found that the original disease only yielded to one more powerful." The candid and liberal reader will, from these extracts, be able to appreciate the value of the Doctor's remarks on the agency of mercury, in this instance at least; and when we consider that there was superinduced on a predisposition formed of sudden and extreme change of climate, exposure during three days encampment in the torrid zone, to heavy rain, immediately after their arrival from Europe, and its consequence dysentery, the infection of a most virulent and exterminating pestilence, can we be astonished that even the most powerful remedies should fail to restore them to health, or to arrest the rapid progress of the disease to death?

Dr Saunders will, I trust, forgive the freedom I use, and perceive that my only view is to elicit truth, and strip it of misrepresentation. Indeed, the many truly excellent and highly important observations on the structure, functions, and diseases of the liver, as well as on the use of mercury in the cure of them, contained in the original and principal work of this celebrated physician, wear so much the appearance of inconsistency with those latter remarks on the use of mercury, that we are compelled to contemplate it with an unpleasant mixture of astonishment and concern.

VIII.

Observations on the Cause of Death from what is called the Wind of a Ball. By the Rev. PATRICK FORBES.

SIR,—In your Number for January, Mr Ellis gives an account of several curious effects produced by the passage of a cannon-ball near to the human body, which he is disposed to attribute to atmospherical electricity, accumulated in the ball during its flight through the air. I cannot, for many reasons, consider this opinion to be well founded. It is difficult to believe, that such a quantity of the electrical fluid as is necessary to deprive a man of life, could be accumulated in a cannon-ball; and no instance seems to be known to Mr Ellis of electrical effects being produced by any ball on things devoid of life; for what he says of metallic substances, such as buttons and epaulets being torn away *without actual contact*, is not at all implied in Dr Blane's account, who is the only person quoted by Mr E., that mentions such a circumstance. Indeed he proposes this as the subject of future experiment. If the effects in question were produced by electricity, it is odd that parts equally necessary to life, and as easily injured, such as the brain and stomach, should be so differently affected; "the wind of the ball," in the one case, being fatal, and, in the other, attended only in general with temporary consequences. Mr E. seems likewise to have failed very completely in his attempt to identify caloric and electricity, from the circumstances of both having the power of inflaming bodies, and of the presence of oxygen gas, which contains caloric, being necessary to the production of electricity in the common electrifying machines; for these will appear to any one who will take the trouble to examine Mr Ellis's reasoning, to be the only proofs which he adduces of the identity of these two substances, or whatever else they may be called. On this identity, it is to be observed, that his whole theory depends. I shall not, however, enter on the particular confutation of this hypothesis, which I believe will make few converts, and would not probably have been adopted by Mr E. himself, had he not wished to support a favourite conclusion. And indeed, I must remark, that were such loose analogies accounted proofs of identity, natural science would, in my judgment, revert to its pristine state before the days of Bacon.

In opposition to Mr Ellis's opinion, I think that there is a mechanical cause for the effects produced by a ball passing close to the human body, which will sufficiently account for them. This is the vacuum produced by the rapid motion of the ball through the air, which though of itself partial, yet when we combine with it, the condensation of air taking place immediately before the ball, may, I suppose, have fully the same effect as if the vacuum behind it were complete. When a ball then passes close to the stomach, there is, in the first place, a great addition to the pressure on that viscus from the condensation of the air: As soon as the ball is passed, this pressure, with a great part of that of the atmosphere, is taken off; the consequence of which is a sudden expansion of all the fluids in the stomach and the blood in its blood-vessels, and the rupture of both. The rupture of the stomach is the cause of death, and the extravasation of the blood, of the black appearance, externally. In the case mentioned of the false-ribs being fractured and death following, the same explication will apply; some viscus, from sudden expansion of its contained fluids, has burst and forced the ribs outwards. The case of the thigh-bone being broken, and about two inches of it being shivered into small pieces, appears a great confirmation of this mode of explaining the effects produced, and is very hostile to that of Mr Ellis. Had the accident been occasioned by electricity, the thigh ought to have been shivered lengthwise by the passage of the fluid to the earth. But if occasioned by a vacuum suddenly produced on the one side, and by the whole pressure of the atmosphere immediately applied on the other; this will account for the two inches being, as it were, broken out from the femur; and the shivering into small pieces was caused by the sudden expansion of the fluids in the internal and vascular part of the bone.

On the other hand, this hypothesis affords an explication of the reason why the passage of a ball, close to the head, is not attended with fatal effects. Every one who has seen experiments with the air-pump, knows the resistance which a spherical form of vessels opposes to the pressure of the atmosphere. In like manner, the spherical form of the head prevents all injury to the brain, except that of being stunned, which is owing to the sudden impulse of the atmosphere on the scull, producing the same effect as a stroke. The blindness, consequent on the ball passing before the eyes, is doubtless owing to the sudden expansion of the humours, by the pressure of the atmosphere being removed; in consequence of which the organization of the part may be so much injured, as to induce a degree of weakness that may terminate in total loss of sight.

I had written thus far, when I saw Dr Spence's paper in the April number of your Journal, who seems inclined to believe, that the accidents in question, are owing to the velocity communicated to light substances by the ball. This explanation, he himself acknowledges, will not apply to all the instances mentioned by Mr Ellis; and though I have no doubt that considerable effects may be produced in this way, yet it appears unaccountable why the injury should not appear more externally than internally, as when one body is driven violently against another, must unavoidably be the case. Dr Spence's observations do not seem to invalidate this remark. In my judgment, then, this forms an insuperable objection against his mode of explication; and, on the contrary, tends greatly to confirm that which I have suggested, as the force I have supposed to act is internal. The blackness and sphacelus of the muscles, mentioned by him as consequences of this accident, are likewise well explained by the rupture of the small vessels, producing extravasation and disorganization of the part. On the same grounds, an easy answer is afforded to the question proposed by Dr Spence, why the passage of a ball has not always the same effect in battle? This arises from want of the necessary velocity to produce the condensation and vacuum, which has been considered as the cause of the effects produced; as great velocities, we know from the experiments made with cannon balls, are rapidly destroyed by the resistance of the air. On the whole, this explication seems to me to have all that is requisite to a legitimate hypothesis; namely, that it affords an easy and complete solution of all the phenomena mentioned, as accompanying the "wind of a ball."

Manse of Boharm, May 26th, 1812.

IX.

Observations on the Treatment of Chorea Sancti Viti. By Henry Reeve, M. D. One of the Physicians to the Norfolk and Norwich Hospital.

The cure of chorea by purgative medicines has been lately the subject of several disquisitions by medical writers. Among those who have most distinguished themselves in recommending this practice, are Dr Hamilton, Dr Parr, and several correspondents in the Edinburgh Journal. Although the evidence which they adduce in favour of purgatives is very decisive, and I have no doubt this method of treating the disease is the speediest and the most effectual, yet it remains to be proved, that tonics and stimulants have always failed, and that purgatives alone will universally and infallibly be successful. In the course of sixteen years, I have seen thirty-five cases of chorea. All these patients recovered, except one; and they got well under every variety of treatment, from the most powerful down to the most inert and apparently inefficacious remedies. The case which terminated fatally was that of a patient in St Bartholomew's Hospital, in 1804; a boy twelve years old, who took scammony and calomel in large and repeated doses, besides other medicines, without any abatement of his symptoms. The convulsive motions in this case were violent and continual, night and day; and the patient died exhausted, six weeks after his admission into the hospital. It seemed necessary to say thus much of personal observation, because, in their accounts of this disease, several authors have enumerated their individual experience, and contrasted it with the slender authority of single cases related in periodical publications. But the reader will find a more conclusive argument in the result of the following report of the cases of chorea admitted and discharged from the public hospital here; for, during a period of thirty-six years, the medical department of this institution has been conducted by eight different physicians; their practice has varied considerably; yet in the cure of this disease, success has been nearly equally divided amongst them. The late Dr Lubbock always prescribed preparations of steel for the cure of chorea; he never employed purgatives or any evacuations, and he has told me he never failed of success. By other physicians, antiphlogistic remedies, such as bleeding, saline medicines and purgatives, have been employed, and also tonics and stimulants.

A general Abstract of the Patients with Chorea, admitted and discharged from the Norfolk and Norwich Hospital, from March 1776, *to March* 1812.

		No.
Patients affected with chorea, admitted from the month of March 1776, to March 1812, - - - -		84
Discharged	Cured, - - - - - -	74
	Relieved, - - - -	5
	At his own request, - - -	1
	Having epileptic fits, - - -	1
	Not likely to receive benefit, - -	1
	Died - - - - -	2
		84

It appears that this disease has occurred in 84 out of 28,810 patients, (the total number admitted), or 1 in 343. It is most frequent in females, in the proportion of 57 to 27, or as 19 to 9. *Heberden* remarks, a fourth part of the patients he saw were males *. Hamilton says, it attacks boys and girls indiscriminately. Out of the number of cases above stated, there was only one man, forty years of age, and that was a severe case; for the disorder returned a few months after he was discharged from the hospital; he was re-admitted, and continued eight months under medical treatment, till he was dismissed relieved. All the patients, except two girls, aged five and six, were above nine years old; the most common date of the commencement of the disorder, was between the ninth and fifteenth year of the patient's age; four females were above the age of 21. Out of 84 cases, only two had a fatal termination; both of these were boys, in whom the disease had been of long standing. The patient discharged as not likely to receive benefit, was a woman 28 years old, who had been affected at different times for three years prior to her admission; the patient discharged at his own request was a boy, who had the disease a year before he came to the hospital; he remained there four months. The patients relieved were persons who had been long affected; and the one discharged on account of his being subject to epileptic fits, was a lad fifteen years old.

Relapses took place in nine cases, all of them after an interval not less than a year; in three of these, the disease recurred a third time, but was ultimately cured. The shortest period of medical treatment was two weeks; the longest, eight months; the common average seven weeks; observed in the whole 84 cases.

I have selected chorea for a comparative investigation of the different methods of treating it, because it is a disease in which two of the three points of evidence necessary for establishing medical facts can be readily ascertained: viz. first, that the disease really did exist, and, secondly, that it was cured. The third point,—whether the alleged means alone performed the cure,—is a question which may be left for the reader to determine.

The connexion of the irregular involuntary actions of the muscles, with a disordered and loaded state of the intestines, is much insisted on by Dr Hamilton and his correspondents; yet in their reports of several cases, *the belly* is said to be *regular*, or *belly open*, and the stools, after the first purgative, are described as being of the natural appearance.—(Vide Appendix, No. VII. Hamilton's Observ. on Purg. Med.; and Mr M'Mullin's paper, Vol. I. Edin. Journal.) There seems to be a source of error, too, in reporting the state of the alvine evacuation. Might it not be expected to assume those appearances described, after the children were made to swallow such large quantities of infusion of senna, aloetic pills, jalap, extract of liquorice, phosphat of soda, calomel, magnesia, and broth, without any mixture of common solid food? Grant that in every case such appearances do exist; yet it is by no means clear the inference is true, that such a quantity of feces had accumulated in the cavity of the intestines, and occasioned the convulsive affection, any more than when a person takes an emetic, and brings up by repeated efforts a large quantity of bile, that bile is to be considered as having accumulated in the stomach, and according to the vulgar notion, caused the sick headach. If you ask the parents what first brought on their children's complaint, they will answer, in a majority of instances of chorea, that it was something by which they were frightened. Irritation, excited by teething, is another cause of chorea, and the patient has recovered in a few days after his gums were lanced. In these instances, torpor of the bowels does not belong to the history of the complaint; and the only use we can make of the fact is to show, that the exciting cause is various. In seven cases which have come lately under my own care, the bowels were regular, the body was not swelled, nor were any symptoms of loaded intestines present; yet six recovered by taking only purgative medicines, but the seventh required some tonics before any decided amendment took place. I remember a case of chorea in which the patient was much troubled with diarrhœa, yet this did not prevent my friend, who had the treatment of it, from steadily administering purgatives until the irregular actions of the muscles ceased. Dr Hamilton has judiciously remarked, that chorea consists of two stages; and he points out the period when tonics and stimulants may be used with propriety and effect; and although he says, he has "not felt the necessity of having recourse to medicines of this kind," yet he employed other remedies besides purgatives in three out of the seven cases which he has inserted in his appendix, if it be allowable to call by that name such articles as wine, porter, a blister, warm bath, glysters of broth and assafœtida, beef-tea, and oxide of iron. Perhaps some physicians have been unreasonable in their expectations of success, in curing severe and protracted cases of chorea, and other diseases of the muscular and nervous powers, by purgatives alone; for where purgatives have been given in large and frequent doses, as in tetanus, trismus, hysteria, and some cases of chorea, I am disposed to think, it will always be found prudent and necessary to administer wine, porter, beef-tea, &c. abundantly, to support the patient's strength. I am led to this opinion from what has come under my own observation, as well as from the perusal of Dr Hamilton's cases, and some valuable histories of tetanus and trismus, published in the second volume of the Medico-Chirurgical Transactions, and in the fifth vol. of this (Edin.) Journal.

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* Comment. de Morb. Hist. et Curat. p. 92.

Nothing requires greater caution in our inquiries concerning the utility of medicines, than to distinguish exactly what is produced by one substance, and what is owing to another; nor is there any subject in which an author is more liable to deceive himself by false estimates. It is but fair, in all cases, to state every circumstance, in order to appreciate the value of the regimen as well as the physic, and, if required, to divide the credit of the cure between them. I do not mean to detract from Dr Hamilton's merit; for it is impossible not to feel the powers which he has displayed in his work on the utility and administration of purgative medicines in several diseases; and there is no part of his book, where his skill and ingenuity is more successfully exerted, than in combating the doctrine of debility, which has undoubtedly inculcated a fear of evacuations in chorea, and other spasmodic diseases, which is not justified by experience, and is wholly irreconcileable with facts. The hackneyed phrase of *debility* is a centre round which much delusion has gathered; but it is now happily subsided: And the physician, perceiving how much the outward help of his art can facilitate the progress of nature, will not be betrayed by theoretical speculations into pernicious mistakes, where he can find the principles of his interference warranted by substantial experiments.

PART II.

CRITICAL ANALYSIS.

I.

Entomologie und Helminthologie des Menschlichen Koerpers, oder Beschreibung und Abbildung, der Bewohner und Feinde disselben unter der Insecten und Wuermern. Von D. Johann Heinrich Joerdens, &c. &c. 4to. Vol. I. pp. 319. 15 coloured plates, Hof. 1801. Vol. II. pp. 154. 7 coloured plates. Hof. 1802.

No apology, we apprehend, is necessary for giving an account of books, though not recently published, provided they be new or scarcely known in this country. The copy of the publication lying before us we obtained with great difficulty, some months ago, and is, we believe, the only one in this kingdom.

Mr Joerdens considers his subject in the most extensive point of view, as he includes, not only the insects and worms which infest the human body exclusively, but also those which are only occasionally injurious to it, and even those which contribute to its disorganization after death. Of each of the numerous species which this plan obliges him to notice, he details minutely the systematic history; gives one or more coloured figures of the insect, larva, &c.; describes accurately the injury which it does to the human body, as well as the means of remedying it; and to the whole prefixes a very copious literature. This extensive view of the subject has, no doubt, materially increased the size and expense of the work, but we do not think unnecessarily, because it has enabled him to collect together an immense mass of curious information, for which there would otherwise be no proper repository.

The first volume, besides an introduction, treats of the insects which infest the human body externally, and the second, of the intestinal insects and worms. The introduction is not very important; Mr Joerdens puzzles himself to find out some use for these troublesome and hurtful companions; for it is evidently quite ridiculous to suppose, that such means were necessary to induce us to take care of the cleanliness of our persons,—to warn us against improper food,—to contribute to our health by devouring the excessive mucus in the intestines,—or finally to terminate our corporeal existence after we had completed our destiny in this world.

The injury which these animals inflict on the human body, may be either mechanical, chemical, or mixed. Of the first kind are the wounds of all those which are not furnished with any particular acrid or poisonous secretion to insert into the wound. The second class includes only cantharides, the *Coya*, the larva of the *Vinula*, and a few others. The last division, which contains those which poison the wound they inflict, is by far the most numerous. This is evident from the effects produced being totally disproportioned to the mechanical injury, frequently producing erysipelatic inflammation, vesicles, ulcers, swelling of the wounded part, with redness and pain,—or on the contrary, insensibility and numbness, accompanied by fever, paleness of the countenance, increased flow of tears, swelling of the body, trembling of the limbs, depression of the vital powers, cold sweats, fainting, spasms and convulsions.

The chemical nature of these poisons is totally unknown; but their production does not seem to depend on the irritation of the animal when inflicting the wound. On the other hand, it seems intimately connected with the temperature of the atmosphere, as many insects, which are innocent in winter, and cold climates, become dangerous in summer, and in hot climates.

Mr Joerdens then proceeds to consider the influence which the season of the year and atmospheric temperature, the aliment and condition of the insect, and the age, sex, and constitution of the person wounded, have upon the effects of these poisons; but the ready explanation which he has constantly coupled with his statements, makes us strongly suspect that they are derived from hypothesis rather than observation. His preface is concluded with a very general account of the remedies to be used against the bites and stings of poisonous insects.

The first subdivision treats of those insects which live only in the human body, and can propagate themselves in it alone. These are, so far as we yet know, only six in number: the *Musca lepræ*, *Pulex pruriginis senilis*, *Pediculus humanus capitis*, *corporis*, and *pubis*, and the *Acarus scabiei*. He commences his account of the first of these with the following judicious observations.

"Foul ulcers of all kinds, which are exposed to the air, and the tribes of insects inhabiting it, especially in warm weather, are common nests for certain kinds of maggots and larvæ. This was known to the antient Greeks, as I shall have occasion particularly to mention, when speaking of flies hurtful under certain circumstances only. Galen and Ægineta were acquainted with the fact; and among the moderns, it is most fully noticed by Hauptmann, Lange, Plater, Sennert and Borelli, but especially by Steenever, who has not only supplied the exact description of these maggots, but also given representations of them in their various states. As is still the case, at that time too general conclusions were derived from general observations; and because worms and insects were found not only in foul ulcers and wounds, but also in various cutaneous eruptions, they were considered as the causes of most diseases, to the exclusion of miasmata. Even the great Linné and his contemporaries acceded to this opinion, and added to its popularity by the authority due to their spirit of investigation; and not only all eruptions, but syphilis, the plague, and many other diseases, were ascribed to worms and insects. But the diversity of insects found in different cutaneous diseases, does not entitle us to consider them as their cause, but rather as their consequence. For every insect which derives its nourishment from acrid, fermenting and putrid substances, does not therefore thrive, wherever there is fermentation or putridity; but different degrees of these are congenial to different kinds of insects. Hence, a particular insect may exclusively be nourished in particular cutaneous sores, without having the least connexion with its form or malignity, just as other insects, which live on fresh and entire substances, are not indifferent in the selection of their food."

The second subdivision is allotted to those insects which do not inhabit the human body, but are remarkable, on account of the inconveniences or diseases which they occasion in it. These are again divided into three sections. The *Cimex lectularius*, *Oestrus hominis*, *Pulex irritans*, and *P. penetrans*, are included in the first, as insects which commonly and especially infest the human body. The second section contains the description of 94 species, which only injure it under certain circumstances; and the third section is devoted to those insects which appear in the human body as a very uncommon occurrence; such as insects under the skin and in the muscles, in the frontal sinus, in the eyes, in the maxillary sinus, in the nose, ears, mouth, trachea and lungs, stomach, intestines, urinary organs, mammæ and female organs of generation.

The third and last subdivision of this third section, is the history of those insects which are nourished and propagated in the dead human body in its different stages of decay.

The second volume is more interesting to the practitioner. It contains three sections; the first treating of worms peculiar to the human body; the second, of worms only occasionally injurious to it; and the third, of those accidentally found within the human body: and in an appendix, he has collected the histories of some undetermined insects and worms, of fabulous cases, and of various amphibia, and other animals said to have been found in the human body. In the introductory chapter to the section on intestinal worms, Mr Joerdens states at great length his grounds for believing that their eggs are introduced into the fœtus with the blood of the mother, or into the infant with the milk of the nurse. From the latter supposition, he draws a practical conclusion, that, in choosing a nurse, we should be particularly careful that she never has been affected with worms. He also hints, that the saliva may be the means of introducing the eggs of intestinal worms, in those countries where nurses have the abominable practice of previously chewing the food they give to infants. But besides the introduction of the eggs, a certain predisposition is necessary for their development in the intestinal canal, and which seems to be connected with a warm and moist atmosphere, and the deficiency of food, or the use of unwholesome food in times of scarcity. In his observations on the symptoms, diagnosis, and method of cure of intestinal worms, there is nothing worth noticing, except that he nowhere mentions the oil of turpentine, lately used with so much success, as a remedy ever suggested. The intestinal worms described by Mr Joerdens are—

1. *Tricocephalus hominis.*—This worm was discovered in 1760, by Wagler, and is rare. It is most commonly found in the cœcum of persons who have suffered from great accumulations of intestinal mucus. Nothing certain is known of symptoms peculiar to its presence, or of the means most successful in expelling it; but Mr Joerdens recommends saline medicines, from their action in dislodging intestinal mucus.

2. *Ascaris vermicularis.*—Of the numerous accounts of these well known inhabitants of the rectum, Mr Joerdens thinks that those of Goeze and Van Phelsum alone deserve the epithet of classical. They are easily distinguished from young lumbrici, by the vivacity of their motions when exposed to the light. The anatomy of the male is given as well as that of the female; and suppositories of bacon, to which they often adhere in heaps, are mentioned among the remedies.

3. *Ascaris lumbricoides*, is most frequently met with in the cœcum and jejunum, but occasionally finds his way into the large intestines and stomach, or creeps into the pancreatic or biliary ducts, and sometimes penetrates through the coats of the intestines into other parts of the body. They occasionally produce the most violent symptoms, or even cause death; and at others, exist in great numbers without being suspected.

4. *Ascaris stephanostoma*, fronte bicorne, proboscide acuminibus duodecim obsessa, incisuris corporis quatuordecim, cauda bifida. Habitat in canale intestinali.

5. *Ascaris conosma*, papillis in capite obtuso duobus, incisuris corporis decem, cauda simplice. Habitat in canale intestinali.

These two new worms were discharged by the action of calomel from a young man, under the care of Professor Bretschneider, and were examined by Professor Lenz of Jena, and preserved in his collection. They differ very much from all other intestinal worms, and have more the general appearance of larvæ. As they have considerable resemblance to each other, and occurred in the same patient, it is possible that they are the male and female.

6. *Hamularia lymphatica*, corpore lineari, teretiusculo, capite obtuso, infra duobus hamulis prominentibus instructo. This filiform worm was discovered by Treutler, in a person who had died of phthisis, in the glands at the division of the trachea and bronchiæ. They were within the lymphatic vessels, adhering strongly to them by two hooks. The vessels were much enlarged, and their valves destroyed.

Of the tape-worms, he describes only three species, the *tænia solium*, *vulgaris*, and *lata*. We shall say nothing of these at present, as we shall soon have occasion to notice the discoveries of a very promising young naturalist in regard to them.

The next section treats of hydatids. Those described are,

1. *Tænia visceralis*, vesicula simplice inclusa, capitis tuberculis tribus, totidemque corporis articulis, basi vesicæ affixis. This was found by Treutler on the inner slightly inflamed peritonæum of a woman who had died of dropsy.

2. *Tænia muscularis* or *Finna humana*, capsa vaginali cartilaginea, vesicula caudata apicibus obtusis. These are found in the cellular substance among the muscles.

3. *Tænia pyriformis*, capite globoso, proboscide obtusa, papillis sugentibus quatuor multum prominentibus, hamulorum serie duplici, collo tenui, vesica in cauda pyriformi. Fischer found these in 1788, in the choroid plexus of a young man who died of ardent fever; but he knew nothing of his previous history.

4. *Tænia albopunctata*, velamento externo capsulari, capite sessile, papilla suctoria una, una tantum sex hamulorum corona, vesica in cauda rotunda. These were also found in the choroid plexus of a woman 28 years of age, who had become dropsical after an obstinate intermittent, by Treutler. In the last month of her life, she complained of great weight in the right side of the occiput, involuntary flow of tears, and frequent dimness of sight. She slept so soundly, that she was with difficulty awakened. Her hearing and speech daily diminished, and her memory left her entirely. She lost all power of voluntary motion, so that she could neither hold up her head, nor lift an arm or leg. To these were added convulsions and apoplectic attacks. At last she fell suddenly dead, when she seemed to be recovering, and was try-

ing to walk about. The choroid plexus was turgid with blood, and varicose, and contained 14 hydatids on the right side, and two on the left.

5. *Polycephalus hominis*, corona uncorum simplici, capite imperforato corporibusque pyriformibus. These were discovered by Meckel, in the brain, and the description given by Zeder from Goze's posthumous papers. Zeder himself afterwards found them in a girl. The case and dissection are interesting. A young woman, two years before her death, became affected with headach and giddiness. An year and an half afterwards, she recovered in some degree, and lived happily, but too freely for some weeks, until, when on the water, in an oppressively hot day, she was so violently attacked with headach and giddiness, that she fell down senseless. She complained of distension in the forehead, loss of memory and sight, and alternating headach and giddiness. These symptoms increased in violence. She could not bear the least light, or walk erect, but went straight forward, with her body bent, and struck herself against bodies in her way, like sheep affected with the staggers. At last she died and was opened. In the third ventricle, along with water, was found a particular kind of hydatid, containing a fluid resembling a solution of gum. In the passage to the aqueduct of Sylvius, and partly beneath the posterior end of the origin of the left optic nerve, there was a similar hydatid, larger than a hen's egg, to which three smaller ones adhered. In taking it out it burst, and, besides the fluid already described, it contained three other smaller ones. The tentorium cerebelli was also observed to be pushed very much up, and on taking out the cerebellum, there were found, in the fourth ventricle, besides water, several hydatids, which distended it so that it could have contained a hen's egg. In the bottom of this ventricle, on the right side, there was an indurated portion the size of an almond, of a yellowish colour, and as if covered with matter. From this, other indurations, like catgut, extended in various directions. There were in all twelve hydatids of different sizes, besides half a pint of water.

The fifth section treats of the flat worms Fasciolæ or Ligulæ.

1. *Fasciola Hepatica*, ovata plana, Bucholzii. Habitat in vesicula fellea. An original observation of Bucholz of Weimar, in which the gall-bladder was found filled with these worms, confirms the preceding accounts of Bidloo, Bauhin, and Pallas. The last of these authors says, that the bodies in which they occur are always dropsical, their omentum shrivelled, their kidneys unusually small, and their liver very large, the gall-ducts enormously distended, the bile tasteless, thick and granular, and almost all the intestines beset with hydatids.

2. *Hexathyridium pinguicola*, labio distincto, retractili; capite in fine ostiis sex perforato, cauda curvata; ventre bifurco. The only example of this worm was found by Treutler in the fat of an ovarium.

3. *Hexathyridium venarum*, corpore elongato, depresso, lanceolato; capite labiato, infra poris sex obsito; collo indistincto; dorsi areola ex albo cærulea; ventre poris duobus dissectis; cauda recta; margine nullo. This insect was extracted, according to Treutler, from a ruptured hole in the anterior tibial vein; but we must confess that we suspect some fallacy in the observation, as there evidently is in all the preceding histories of worms and insects found in the blood.

The infusory animals of the human body, we pass altogether over, as having no practical interest.

The *Hirudo sanguisuga* and *H. medicinalis* are described as animals which occasionally fasten on the human body. The expedition to Egypt has furnished us with a still more dangerous species, which is swallowed with the water, and fixes on the inside of the œsophagus and stomach.

The worms which penetrate the skin, and burrow under it, are the *Gordius aquaticus*, *Filaria Medinensis*, and *Furia infernalis*. The first is supposed by our author, and others, to be a frequent cause of paronychia. To the history of the second, the preceding Numbers of this Journal have furnished no inconsiderable addition. The existence of the third is highly problematical. It is doubted, both on account of the singularity of the effects ascribed to it, and the very few instances in which the worm has been discovered. On the contrary, Linnæus and Solander firmly believe they have seen it. The latter expresses himself thus—"Had I not seen the disease with my own eyes, and had the worm in my own hand, I could scarcely have believed what is related of it." The disease ascribed to this insect is a carbuncle or boil, which quickly becomes gangrenous, and terminates fatally, unless the most active remedies be immediately resorted to, or the part be extirpated by the knife, or actual cautery. A disease of this kind is endemic in various countries. It is called in Bothnia, *Skatt* or Shot; in Siberia, *Morowaja Iasma* or plague; in Tartary, *Mohmo*; and in Franconia, *Flugbrand*, or rapid gangrene. It is ascribed to the action of an external cause, and nominally to the furia infernalis; because it never attacks men or cattle in towns, but only in the fields; because it always commences in those parts of the body which are exposed to the air, in a single point, with an acute pain like the prick of a needle; because, in the boil, a red or bluish point is seen like the bite of an insect; and, lastly, because the progress of the disease is so easily checked, by destroying or removing the part. Still, however, the innumerable unsuccessful attempts to find any worm in the seat of the disease; the possibility of accounting for the disease independently of its existence; indeed, the similarity of some of its descriptions with a disease of sheep, called the sickness in the blood by our Scots shepherds, and the Target of some parts of England, and the possibility of mistaking the core or nucleus common in carbuncles for a worm, induce us to differ from our author, and to disbelieve its existence.

Of the remaining sections, containing the histories of singular and incredible cases, we shall say nothing, but refer the curious to the work itself. Upon the whole, we have been much satisfied with these volumes, and with the total want of pretension in their author. As mere compilations, they evince much industry and judgment, but they are frequently enriched with original observations of interest and importance. The plates, in the same manner, consist of good copies from the best originals, with the addition of some figures which have never been before published.

II.

An Essay on the Disease called Yellow-Fever, with Observations concerning Febrile Contagion, Typhus Fever, Dysentery, and the Plague, partly delivered at the Gulstonian Lectures before the College of Physicians, in the years 1806 *and* 1807. By Edward Nathaniel Bancroft, M. D. Fellow of the Royal College of Physicians, Physician to the Army, and late Physician to St George's Hospital. 8vo. pp. 811. London, 1811.

We have seldom had occasion to peruse so large a volume, on a medical subject, which awakened our interest, and engaged our attention throughout, so uniformly as the essay before us. The subject, indeed, is one of the most interesting that can occupy the consideration of the medical philosopher. For, while the occurrence of these fatal epidemic diseases is connected with so many important political events in the history of mankind, and with so many circumstances in the physical history of the globe; the source from which they originate, the means by which they are disseminated, and consequently the expedients by which they may be avoided, prevented, or exterminated, are objects of the greatest practical importance. It is not easy, indeed, to conceive the extent of the practical evils that must ensue, when a contagious malady is mistaken for one that is not contagious; or when, on the contrary, an epidemic, destitute of any contagious properties, is believed to be propagated by contagion alone. The former error has perhaps but seldom been committed; for the knowledge and terror of contagion seem to have existed from the earliest ages. But the latter, from the influence of that popular terror, and from the extreme difficulty of tracing the progress of an agent, which is not cognizable by the senses, and is known only to exist by its remote effects, has, doubtless, but too often been acted upon, with an aggravation of all the miseries attendant on so terrible a calamity. So great, however, is the difficulty just alluded to, that not only the mass of the people, but the professional observers, have often adopted different and opposite opinions, relative to the nature of these epidemics; and that, even in our own times, an extensive epidemic seldom occurs, respecting the nature of which all the medical spectators concur in their opinions. Of this, not only the fevers of America and the West Indies, together with those of Spain, but even the recent fevers, so fatal to those engaged in the expedition to Walcheren, afford us examples.

It is surely, therefore, a most important object of inquiry, to trace the circumstances which have been observed to be common to different epidemics, whether as to the local peculiarities of situation, temperature, &c. or as to the phenomena of the diseases themselves; whence some general principle may be deduced, upon which the reasoning of future observers may be safely conducted. This is the object of Dr Bancroft; who has shown himself, not only from his extensive personal observation of epidemic fevers, in various parts of the world, but from his industry, acuteness, and general as well as professional erudition, eminently qualified for the investigation which he has undertaken. He might, we think, have condensed his materials within a narrower compass than eight hundred pages, without much diminishing the force of his inferences; but, on the whole, we are not disposed to quarrel with his prolixity; since a question of this nature can only be finally determined by the most ample accumulation of respectable evidence; and that which he has adduced, appears to be highly entitled to that character.

Of this mass of evidence, however, which it appeared to the author necessary thus to detail at length, we cannot convey the force and substance within the compass of an article like the present: We fear, therefore, that we may greatly weaken the effect of the argument which he has adopted, by any attempt at abridgement.

After pointing out the inaccurate nomenclature which the nosologists and other writers have applied to yellow-fever, and giving his preference, on the whole, to the term "*causus*," or ardent fever, Dr Bancroft animadverts on the want of precision with which the term Yellow-fever has been used, and to which he attributes much of the ambiguity that has prevailed respecting the nature of the disease. It is a fact, he states, that in all countries in which the atmospheric heat, during certain seasons, rises usually to the 85th degree of Fahrenheit's thermometer, or higher, all fevers, however produced, have a tendency to assume the violent and dangerous form which is generally considered as the characteristic of yellow-fever. Nevertheless, those sporadic fevers, he believes, are always of a continued type; whereas the epidemic yellow-fever almost always shows a disposition to remit, unless the speedy death or recovery of the patient precludes a second paroxysm. The causes of sporadic fever are well known, and may be avoided by almost every individual; viz. intoxication, and other excesses, cold, fatigue, passions, &c. together with previous or subsequent exposure to the solar heat.

After a concise detail of the symptoms of the remittent or epidemic yellow-fever, the author observes, that when it terminates fatally, it is generally the consequence of some irreparable injury having occurred either in the brain or in the stomach, which, he believes, jointly suffer in every case more or less. But he remarks,

"Those who die from an affection of the head, generally perish early in the disease, and with less vomiting, especially of blackish or dark-coloured matters: whereas, on the other hand, those in whom this last symptom greatly predominates, are usually found to have their mental faculties clear, though often much weakened; and they seldom expire before the end of the fourth, or the beginning of the fifth day." (p. 17.)

In cases of the former kind, dissection exhibits unequivocal signs of inflammation in the brain and its membranes; while in the latter, indications of inflammation in the stomach, equally unequivocal, are found. "In some cases, almost the whole inner surface was inflamed; very often portions of the villous coat were abraded, and not unfrequently observed floating among the contents of that viscus." It is from this inflammation, the author contends, that the *black vomit* (which has been assumed by the Spaniards as the appellation of the fever) arises, and not, as is erroneously supposed by many, from morbid *bile*. From numerous dissections, made by Dr Physick, of New York, it has been proved, that, in these cases, the liver is rarely found diseased, but the stomach always; that the black matter was never discovered in the gall-bladder, or the liver; that the stomach has been seen loaded with it, while the bile in the gall-bladder was in its natural healthy state, and the liver free from disease; and even in several cases, when a contraction of the pylorus had completely obstructed the passage from the duodenum into the stomach. The matter of black vomit, besides, differs entirely in all its properties, in colour, and *taste*, from bile. In many cases, the black substance was found adhering to portions of the inner surface of the stomach, which, when this was removed, were found inflamed, when there was no inflammation in other parts. The yellowness of the skin, however, is derived from bile; but not from a redundance of the secretion, Dr Bancroft believes, but probably from a regurgitation, or forcing of the bile into the hepatic veins, in consequence of the violent convulsive action of the diaphragm and abdominal muscles in vomiting. In a similar way, he supposes, the jaundice is produced, which speedily follows the bite of vipers, and other poisonous animals, when convulsive vomiting is excited, sometimes even within an hour, according to Mead. Similar yellowness has been also the speedy result of eating certain poisonous fungi in Europe, and fishes in the East and West Indies.

The two diseases with which the yellow-fever has been confounded by some writers, and between which and the latter Dr Bancroft deems it necessary to establish the diagnosis, are the plague and typhus. From the plague the yellow-fever differs, inasmuch as it occurs exclusively under a degree of heat, which would certainly destroy or stop the progress of the plague. It is not accompanied with the glandular and cutaneous affections called buboes and carbuncles—it is always attended by a violent febrile paroxysm which is not absolutely essential to the plague—and it very rarely attacks negroes, and affects them much less violently than whites living under the same circumstances.

"Yellow fever differs from typhus in the following circumstances; viz. it prevails only during or immediately after very hot seasons, in which typhus is soon extinguished; and it is, in its turn, completely extinguished upon the accession of cold weather, in which typhus is commonly most prevalent;—it attacks most readily and most violently the young and robust, over whom typhus is allowed to have the least power;—it begins with much greater exertions of the living power than typhus, is attended with many different symptoms, and terminates much sooner;—it is, besides, disposed to remit, and it frequently changes into a regular remittent, and sometimes even into an intermittent fever, which true typhus is never observed to do. There are some other important circumstances in which the three diseases differ from each other; but these are reserved for another place." (p. 51.)

Contagion is one of the principal circumstances here alluded to, and will come under our notice presently. On the subject of the treatment of yellow-fever, the observations of Dr Bancroft appear to be exceedingly judicious; and, though brief, comprehend perhaps all that can be inculcated as to the general principles upon which the disease is to be conducted through its course: for he properly disclaims the intention of recommending any particular mode of practice that can be applicable to the several forms and varieties of the disease. With respect to *blood-letting*, he is of opinion, that those systematic writers who proscribe it altogether, on the supposition that the fevers of hot climates are usually of a *putrid* nature, have been led into this mistake, in consequence of the rapidity with which the symptoms denoting putridity (to use the common phrase) often supervene, and which has led them to overlook the violent and exhausting symptoms which precede the latter, and are in fact the cause of them. The hard, full, and strong pulse—the distressing sense of universal distension—the red, starting, watery eye, and the parched skin, (not to mention the unequivocal appearances generally exhibited on dissection), are sufficiently demonstrative of the inflammatory nature of the disease in the commencement, in the violent cases. If, however, the operation of blood-letting be not performed very early, as within twenty-four, or even twelve hours, from the attack, the mischief is probably advanced beyond the reach of this remedy. The author allows, however, that there are cases, in which bleeding may be superfluous, or even detrimental: the necessity of the evacuation, and the extent to which it should be carried, can only be determined by the vigour of the patient, and by the violence and previous duration of the inflammatory symptoms. In regard to the external application, as well as internal use of *cold water*, Dr Bancroft bears ample testimony to the accuracy of the principles laid down by Dr Currie, and to the salutary influence of the remedy. He refers to a number of passages in the writings of Hippocrates, in which similar practice was adopted and recommended, as well as by some more modern authorities in proof of the existence of similar practice, and of its decided efficacy both in the fevers of the East and West Indies. With a view to obtain the reduction of the morbid temperature, without fatiguing the patient, he advises the spreading of a single wetted sheet over him as he lies in bed. *Purgatives*, of such a nature as not to offend the stomach by their bulk or quality, and as to produce two evacuations daily, are deemed necessary; especially calomel, with jalap, gamboge, or similar medicines. *Emetics* are condemned by Dr Bancroft, and, we think, upon sound and rational grounds: namely, "First, that they commonly fail in their principal object of removing nausea, which is very apt to continue, and even in a greater degree than before; for this symptom rarely proceeds from any load of undigested food, or bile, or phlegm in the stomach, but seems rather to proceed from other causes, such as sympathy with the morbid state of the brain, or of the surface of the body, or else from an inflammatory affection of the coats of the stomach itself; and these are causes which emetics have little power to remove. Secondly, the patient cannot vomit without making violent efforts, which will exhaust his strength, increase the circulation, and propel a large quantity of blood into the head, where it may occasion the most serious mischief. Thirdly, there is a peculiar tendency in a warm temperature, to render the stomach and intestines relaxed, irritable, and liable to inflammation; hence the great prevalence of cholera morbus, and dysentery, in all countries, towards the end of summer and autumn; and this natural effect of heat is, in no disease, more perceptible than in the yellow-fever, in which a disposition to vomit is usually a very early symptom, and one of the most difficult to allay, as well as one of the most fatal, if not allayed; for what is properly understood by the term of the Black Vomit, rarely occurs, except as a sequel to frequent vomitings: nor can we be surprised at the remarkable frequency of this disposition to vomit, since we learn, from very numerous dissections, that the stomach is more or less inflamed in most of those who have died of the yellow-fever. Instead, therefore, of prescribing emetics in this disorder, it soon became my chief anxiety, while attending the sick in military hospitals, in the West Indies, to calm the irritation of the stomach by every possible means; and I had full employment in this occupation," &c. (p. 65. et seq.)

Dr Bancroft's reasons for not joining in the general commendation bestowed upon *sudorifics*, in this fever, appear to be equally sound.

"1st, They do not seem to be at all necessary; because a natural perspiration will readily ensue, as soon as the excess of heat above the standard of health has been removed, which can be accomplished *with certainty* by the proper application of cold water to the surface of the body. 2dly, The means by which a perspiration is to be excited are not altogether innocent."

The author explains this, by adding, that these medicines are apt to increase the irritability of the stomach, and the disposition to vomit; or, if they fail to excite diaphoresis, they increase the heat, and the determination to the head, and tend to lengthen the paroxysm. Dr Bancroft recommends the early use of *bark* and *cordials*, *i. e.* as soon as the febrile commotion of the first paroxysm is subsiding. It should, however, be a rule, he adds, not to give bark in this disorder, till the period above mentioned; "for if it be given when there is a parched skin, a hard pulse, a dry tongue, great heat and pain at the stomach, or delirium, it will generally be found to increase and prolong these symptoms," (p. 76); an observation, we believe, of universal application in febrile diseases.

On the subject of *mercury*, as a remedy in yellow-fever, our author's observations appear to be equally consistent with rational views of its operation, and with the most correct observations of experienced practitioners. Administered so as to produce *salivation*, its good effects have appeared to Dr Bancroft, during many opportunities of witnessing its operation, extremely equivocal. Dr Rush has candidly stated, that in the hospital at Philadelphia, "where bleeding was sparingly used, and where the physicians depended chiefly upon salivation, *more than one half died* of all the patients who were admitted." (Med. Inq. and Obs. V. 128.) Our author believes, that the good effects of the mercurial treatment have been greatly exaggerated;—"that many persons have died of the fever in question, although mercury, administered externally or internally, had produced a copious salivary discharge;—and that, in very many others who have recovered, this discharge did not begin until *after* a solution, or a great mitigation of the disease had evidently taken place, which solution or mitigation, therefore, could not have been the *effect* of the salivation." p. 84. As large quantities of mercury were often given to patients, (who subsequently died), without producing any obvious effect, either on the bowels or on the salivary glands, Dr Bancroft thinks it fair to infer, that the system had, in these cases, already sunk into a great general torpor, or deficient excitability; and that, on the contrary, where patients recovered, when salivation took place, both the salivation and the recovery must be ascribed to the unimpaired state of the vital powers, or excitability, which remained; and that the one was not the cause of the other. Dr Bancroft, however, deems the use of mercury, as a *purgative*, "highly beneficial;" and into this quality we have generally been disposed to believe that its reported efficacy in all fevers is to be resolved.

We have thus detailed the substance of the "First Part" of this work. The remaining four Parts, occupying, together with a close-printed Appendix, upwards of seven hundred pages, contain the arguments and ample evidence in favour of the *non-contagious* nature of the yellow-fever, the establishment of which is the main object of this elaborate publication; together with some observations on typhus, and on the plague. It will be impossible to communicate more than the general conclusions, to which the author has arrived, upon the various questions which occupy his attention in the course of this inquiry, without attempting to compress into our limits the substance of the evidence on which they are grounded, and, therefore, we are conscious that we cannot do justice to the author. But we may state, in general, that we have seen few medical questions discussed with a more enlarged view of facts, or a more lucid arrangement of the materials collected from numerous sources; and that the author has, in our opinion, gone farther to substantiate, with few exceptions, the inferences which he has formed, than any preceding writer on the subject.

Before he inquires into the nature of the cause of yellow-fever, Dr Bancroft enters, at considerable length, into the discussion of two questions which he deems it necessary to determine previously: namely, 1. "Whether *all* fevers are naturally contagious?" as Drs Cleghorn, R. Hamilton, Clarke, Fordyce, and some others have maintained; and, 2. "Whether a fever, strictly contagious, can be *generated*, by an accumulation of filth, or of putrefying or putrid matters, or by the crowding of healthy persons into confined or unventilated places?" In replying in the negative to the first question, Dr Bancroft quotes from the writings of Lind, Badenoch, Trotter, Clarke, &c. several histories of the occurrence of severe and most fatal fevers on shipboard, all of which were confined to the individuals *who had slept on shore*, on the coast of Africa and Asia, or the islands adjoining them, and were of the remitting type, and never seized any one person in the ships who had not been on shore exposed to miasmata.

The second question involves the consideration of an extensive detail of facts, which, after some inconclusive reasoning on the necessary identity of the origin of contagion in all cases, and the necessary variety of contagious fevers, if they originated from various collections of putridity, the author admits to be the only ground for determining the matter. His first details go to disprove the supposition, that *putrid animal* substances, however offensive to the organs of sense, or however copiously and widely diffused, are capable of generating fever or contagion; although it is admitted that, in privies and other confined places, they sometimes give out vapours so condensed and noxious as to produce asphyxia, and occasionally death, in those who inspire them. The exhumations at Dunkirk in 1783, and those in the church-yard of the Saints Innocents at Paris, in 1786, were, indeed, upon so large a scale as to decide this question. In the latter case nearly 20,000 bodies were taken up, in every stage of putrefaction; and a considerable part of the work was carried on during the *greatest heats* of summer; yet no febrile disorder was occasioned by this immense mass of corruption. (Journ. de Physique, for 1791. Ann. de Chimie, Tom. VI.) Besides some other facts mentioned in the text, the author has inserted in his II. Appendix several additional documents in proof of the healthiness of persons living in the midst of the most offensive exhalations from putrefying matter with perfect impunity. But upon this point, it is altogether unnecessary for us to dilate, as the harmlessness of such exhalations has been abundantly demonstrated by Dr Chisholm, in his able essay on that subject, inserted in this Journal *.

With respect to the second branch of this question, the fallacy of the general opinion may perhaps not be so easily demonstrable. It is now, we believe, commonly admitted, that, to use the words of Dr Cullen, "The effluvia constantly arising from the human body, if long retained in the same place, without being diffused in the atmosphere, acquire a singular virulence, and in that state, being applied to the bodies of men, they become the cause of a fever which is highly contagious." (First Lines, § lxxxi.) In this way, it is supposed that *typhus* is usually generated in the habitations of the poor, in jails, hospitals, and other close situations: and the supposition seems to be countenanced by the frequent occurrence of this fever where no communication of contagion can possibly be traced,—by its almost exclusive prevalence in such situations,—and by the facility with which its progress is arrested by those means which obviate the accumulation of human effluvia; namely, by cleanliness and ventilation. We admit, however, that these are by no means incontrovertible proofs of the fact, but are capable of explanation upon other principles; and we acknowledge the difficulty, stated by Dr Bancroft, of conceiving how these contagious properties are acquired by the *accumulation* of the effluvia: we must, however, allow, that Dr Bancroft has collected, with singular industry and felicity, a considerable number of instances, where the supposed cause existed in full force, without giving rise to its imputed effects. As far as *negative* arguments avail, these statements are weighty.

Dr Bancroft quotes the accounts, given by various navigators and travellers, of the close, almost subterraneous, hovels, in which the inhabitants of the arctic regions "stew" themselves for half the year, without any ventilation, together with their semi-putrid provisions, their excrements, and every species of filth, scarcely supportable to those who have visited them. Yet it is asserted by Lessep, Pennant, Guthrie, De Mertens, and many other respectable writers, that fever of any kind is rare among these people, and that their health does not materially suffer, under these circumstances, except from the scurvy. In warmer climates, again, the testimony of the respectable Dr Lind, of Dr Trotter, Dr Gardner, Lord Anson's chaplain (Mr Walter), and others, is adduced, to show that, in the African slave-ships, in which the negroes were conveyed across the Atlantic, in an atmosphere more close, and "more offensively impregnated with human exhalations, excretions, and excrement, than could probably be found in any other place of confinement;" yet infectious fevers were "scarce known" (Lind) in these ships;—"contagious fevers are not their diseases." (Trotter).

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* See Edinburgh Medical and Surgical Journal, Vol. VI. p. 389. for October 1810.

Dr Lind states, that in the Panther, of 64 guns, there were generally 90 patients sick, and crowded into the most unwholesome part of the ship, without the possibility of ventilation, so as to render it most offensive and suffocating, and to disable the surgeon from remaining long in the place. The scurvy was much aggravated by this condition; "yet out of above one hundred patients, sent to the hospital by this surgeon, not one was remarked to have any symptom of contagion generated in that apartment." Similar facts, equally strong in corroboration of this negative conclusion, occurred in the vessel which conveyed the French exiles to Cayenne, in September 1797; in Lord Anson's ship, the Centurion, after the capture of the Spanish galleon, in 1742, &c. In an appendix (III.), the author proves most satisfactorily, that the disease, which affected Mr Holwell and the survivors of the imprisonment in the black-hole at Calcutta, was not contagious fever; and in the following appendix (No. IV.) he develops, with great ingenuity and sagacity, the nature of the diseases which occurred at what have been called the Black Assizes at Oxford, in 1577, and at the Old Bailey in 1750, especially the latter; for the former, indeed, is involved in great obscurity. It is clear, that the disorder, which occurred at Oxford, was not contagious; and it proved fatal in a much shorter time than typhus is wont to kill, viz. within 40 hours. The writers of the time doubt, whether it arose "from the noisome smell of the prisoners, or from the damp ground."

With respect to the fever which originated in the Old Bailey, at the spring sessions, 1750, Dr Bancroft enters into an elaborate investigation, which we regret that we have not room to follow. It is admitted by published accounts, that there was no particular disease either in Newgate itself, or in the prisoners brought to the bar. Dr Bancroft has given us a plan of the court, in consequence of the circumstance, that the Lord Mayor, and those on his left, and on the left side of the court, were alone seized with the fever. On account of the crowded and heated state of the court on that day, a large window in front, and on the *left* hand of the hall, was opened, into which a strong and cold easterly wind entered. A greater number of prisoners had been tried the preceding day, but the court being thin, no window was opened. Now it is obvious, that in the direction of this stream of cold air, all the sickness was produced, and, therefore, that *it* "contained and conveyed the morbid influence, whatever it was, that occasioned the fever." Unfortunately, respecting the kind of fever that was produced, no accurate account is extant. It was said to have been inflammatory in the beginning, but not to bear large evacuations; and Sir J. Pringle observes, that some escaped without a fever "by a looseness coming on, which was easily cured." None of the persons affected communicated the disease to others. From these, and other circumstances, Dr Bancroft is disposed to conclude, that the operation of a partial stream of cold air, operating on persons debilitated by excessive heat, long fasting, and mental fatigue, is sufficient to account for the disease and mortality which ensued.

In order to prove still farther that contagious fever is not *generated* by crowding, filth, and deficient ventilation, Dr Bancroft adduces an additional store of negative evidence, upon no less authority than that of the able and philanthropic Mr Howard, and from other respectable sources. Mr Howard, found no typhus in Switzerland, where Tissot never saw it; or in the "close" and "loathsome" cells in the prisons of Venice, or in those of Naples, &c. "From the heat of the climate," he says, "one might imagine the *jail-fever* would be very likely to prevail; but *I did not find it in any of the prisons.*" Dr Mounsey, who lived long in Russia, was surprised to find that no such disease as Sir J. Pringle described, was to be found in the crowded prisons of that country, even at Moscow and Petersburgh. Sauvages refers entirely to Huxham and Pringle for all that he relates of the *typhus carcerum.* Mr Howard concluded his inquiries upon this topic in these words. "If it were asked what is the cause of the jail-fever? it would in general be readily replied, the want of fresh air and cleanliness; but" he adds, "as I have found, in some prisons abroad, cells and dungeons as *offensive* and *dirty* as any I have observed in this country, where, however, this distemper *was unknown*, I am obliged to look out for some additional cause for its production." This additional cause, Dr Bancroft affirms, "can be no other than the *contagion* thereof, which, however prevalent in this kingdom, has no existence in most other countries; and where it does not exist, there is good reason to conclude that the true jail or typhus fever never occurs, though other fevers have been frequently mistaken for it."—p. 150.

The third Part of this work treats of "the causes of the yellow-fever." After enumerating several facts, in proof of the existence of marsh miasmata, and of their power of producing remitting and intermitting fevers, the great causes of mortality, especially in hot climates, the author proceeds to examine into the origin, nature, and constituent principles of these miasmata. He adduces ample and demonstrative evidence, that mere aqueous vapour is incapable of producing fever, contrary to the hypothetical assertions of Dr Fordyce, respecting the unwholesome climate of Batavia. The principal proofs are, that, while at sea for months, sailors are generally extremely healthy; that no set of men are more uniformly strong and healthy than the Newfoundland fishermen, who are usually enveloped in the dampest fogs for several months together; that while persons living on shore, on unwholesome islands, &c. as at Walcheren, are speedily attacked with fevers, those who remain on ship-board at a little distance from the land, entirely escape them; and that the occurrence of these fevers has frequently been prevented by laying swampy ground under water, under which circumstances the moisture of the atmosphere must be highly augmented.

What then is the noxious matter of these miasmata? The mineral part of the soil is not vaporizable in any natural heat; and animal substances do not appear capable of producing fever. Dr Bancroft concludes, therefore, that the morbific exhalations in question arise wholly from "the mutual decomposition of vegetable matters and water;" and that those swampy grounds are most likely to emit them, which contain the largest proportion of such matters, and in which the decomposition is most rapid and complete. The exhalations from macerating hemp and flax are well known in Italy to produce fevers; and those arising from heaps of decaying indigo, in the East and West Indies, have produced the same effects.

According to the greater or less prevalence of the circumstances, then, favouring the decomposition just mentioned, such as moisture, air, and certain degrees of heat, will be the prevalence or absence of these fevers. Hence excessive droughts are unfavourable to the production of these fevers, which become very prevalent whenever the droughts are suddenly terminated by frequent rains; and, on the other hand, excessively wet seasons, which inundate swampy soils, also prevent the production of fevers, by excluding the air from the matters to be decomposed. Hence we may account for the seemingly *opposite* origin of the *same* effects in different countries; a wet season in summer producing an epidemic in dry countries, and a dry season, exciting a similar epidemic in swampy countries; several examples of which are adduced. Bnt in addition to moisture and air, *heat* is the great agent in vegetable decomposition: hence it is always found, that the miasmata of marshes are most powerful when the seasons are the hottest, and that the violence of the fevers always correspond with the heat of the atmosphere at the time of, or a short while previous to, their occurrence.

"Where the surface of the earth remains frozen for a considerable space, as during the long winters of northern countries, these exhalations have no existence; and marsh fevers never occur, unless it be from miasmata generated and *imbibed* during the preceding summer and autumn. They begin, however, to make their appearance soon after the return of spring, but only at first in their mildest and most innocent form; that is, as regular *intermittents*, generally of the *tertian* type; and they preserve this type while the temperature continues to be moderate. Afterwards, when the weather becomes warmer, these fevers become less regular and more severe; and, in the hottest parts of the summer or autumn, they frequently assume the more aggravated types of *double tertians*, or of *remittents*. In this country, however, where the summer is but moderately hot, the last mentioned types of marsh fever are not usually of a dangerous character: but in Holland, the Netherlands, Germany, &c. where the heats of summer are generally greater than in this climate, marsh fevers are often attended with considerable mortality, as may be seen in the able account which Sir John Pringle has given of them in his work on Diseases of the Army; and as was recently experienced in the unfortunate expedition to Zealand. In the still hotter summers or autumns of Spain, Italy, and more southern regions, these remittents are yet more violent; and, as will hereafter be shown, they very frequently appear in the form which is known at present by the name of *yellow-fever*, the most fatal examples of which may commonly be found in the hottest parts of the globe, when other circumstances are favourable to the production of marsh miasmata," &c. p. 206.

A similar statement was long ago made by Lancisi; and the observation, which Celsus repeated from Hippocrates, proves that such has been the progress of fevers in the hot seasons, in the countries bordering on the Mediterranean, from the earliest times. "Periculosior æstas; autumnus verò longe periculosissimus."

Dr Bancroft states many decisive facts (pp. 219–228.), in proof of the small distance to which the miasmata can be conveyed by the atmosphere, sufficiently condensed to be noxious. In the late Walcheren expedition, the crews of ships lying within a quarter of a mile from the shore, entirely escaped all fever. When a fleet, in which Dr Blane was physician, watered at Rockfort, in Jamaica, "they found that if they anchored *close* to the shore, so as to smell the land air, the health of the men was affected, but upon removing *two cables' length*, no inconvenience was perceived." The marsh fevers at Rome are confined to small parts of the city nearest to the marshes, even affecting the inhabitants of one side of a street, while those on the other side remain healthy. The perpendicular height to which miasmata rise is obviously very small; for it has been observed by Pringle, Hunter, &c. that the lower floor of a barrack has been exceedingly sickly, while the upper ones were comparatively free from disease. The greater virulence of the miasmata in the night has been uniformly observed, partly perhaps from their greater condensation and accumulation, and partly from the greater susceptibility of the body during sleep. In all marshy situations, the persons who *slept* on shore, have been invariably the first, or the only ones, seized with fevers.

Respecting the period between the exposure to the influence of miasmata, and the appearance of the fever, Dr Bancroft adduces many interesting facts; from which he infers—

> "that, by differences either in the quantity or quality of the noxious exhalations of marshes, their operation, as a cauſe of fever, is liable to great varieties, in regard to its celerity, or the length of time in which diſeaſe actually appears; which is ſometimes within *twenty-four hours*, and ſometimes not till *six*, *eight*, or even *nine months* have elapſed, and then only when aſſiſted by ſome accidental or exciting cauſe. The *longest* periods," he adds, "as far as I can diſcover, have occurred excluſively in cold, or temperate climates; the *shortest* only in the hotter; and in general there ſeems to be ſome foundation for believing, that, *cæteris paribus*, the diſeaſe will be moſt violent in thoſe caſes where it appeared ſooneſt after the morbid cauſe has been applied to the body," &c. p. 243.

On the shores of Batavia, it is not uncommon for seamen to be seized with remittent fever the *next morning*, after having slept on land; whereas great numbers of officers and soldiers, who escaped fever while at Walcheren, were attacked with intermittents, some of them as late as *six*, and even *nine months*, after being brought back to this country. This seems to explain a difficulty, Dr Bancroft observes, respecting the mildness of vernal intermittents in fenny countries: "they may now be considered as resulting from miasmata, received into the body during the *preceding summer* or *autumn*, and (after having remained in a quiescent state during the winter) rendered active by some exciting, or proximate, cause of fever in the spring."—The body is rendered more susceptible of infection by miasmata, when exhausted by fatigue and long fasting: "the poison then gains admission more readily into the body," Dr J. Hunter observes, "and produces *immediately* the worst kind of fever. It is in this way (he adds) that soldiers suffer so much on actual service in the West Indies: the few cases of fever which proved *fatal in twenty-four hours*, that occurred to me, were all contracted in a similar manner." (On diseases of the army in Jamaica.)

The most peculiar *susceptibility* of the poison, however, in respect to yellow fever and marsh remittents, is found in persons who have *just arrived* in places where they occur, from cold or temperate climates; whilst the old inhabitants, who are said to be *seasoned*, are as remarkably exempt from its action. Dr Bancroft investigates at considerable length the question, in what does this seasoning consist? It is not from having previously undergone the fever; because the same individual may have it several times, and because many persons become exempt, without having ever suffered an attack of it. It is not from residing long in *any* place in which the yellow-fever is apt to occur; as the multitudes who were swept off at Philadelphia, New York, Malaga, Cadiz, &c. abundantly demonstrate. And it is not from habitually residing near marshes; because numbers of persons, who live at a distance from marshes, in hot countries, are proof against the yellow-fever, although they sometimes suffer slight remittents, or intermittents, on being exposed to miasmata (p. 245.) Dr Bancroft is of opinion, that these, and all the other peculiarities connected with it, are explicable upon a simple principle; to wit, the accommodation of the heat-making process in the human body to the climate or season, in persons habituated to uninterrupted high temperature; and *vice versa*. "It is chiefly, if not entirely, to the various degrees of that derangement, which heat occasions in persons not accustomed to warm climates," that Dr Bancroft "attributes all those varieties of liability to the epidemic yellow-fever, which are observable in different individuals, from the extreme susceptibility of northern strangers, to the almost complete immunity of Creoles, and more especially of African negroes." After stating the great uniformity of temperature that prevails in the West Indies, (the thermometer seldom falling below 70° in the winter, or rising above 88° in summer), Dr Bancroft makes the following general observations.

"The excitement in the ſyſtem, which enſues immediately upon a perſon's coming into ſo warm a climate from a temperate region, renders him, as I have already said, eminently liable to the yellow-fever, when exposed to the influence of marsh effluvia: by degrees, however, the excitability producing this commotion abates, and at the end, sometimes of twelve months, but oftener of a year and half, or two years, he acquires the power of supporting this high temperature, and then becomes almost as insusceptible of the disease, as the natives or old inhabitants; and afterwards retains this happy immunity so long as he continues in that climate, the great uniformity of which does not, indeed, afford him any means of losing it. He may, likewise, go from the West Indies to those parts of North America, or of Spain, where the yellow-fever is raging with the utmost fury, with almost a certainty of escaping the disease: and even if he should not preserve his health perfectly in those situations, he will, at the worst, be only seized with a mild remittent or intermittent fever, though living in the midst of those who are dying with the yellow-fever in its aggravated forms." (p. 255.)

Dr Bancroft corroborates this statement by numerous facts. When the negro slaves rose upon their French masters in the West Indies, in 1793, about three thousand of the whites fled to North America. Many of these were living at Philadelphia, in the smmmer of that year, when above four thousand of the inhabitants died of the yellow-fever; yet these refugees universally escaped it. In the United States, the climate varies much more than within the tropics: the summer in New England, for instance, although the heat rise as high as in Charlestown, is short, and the winter is much more severe, with considerable frost for many weeks.

"On recurring to facts, it appears from them, that when the yellow-fever had raged over this part of the world, (which seems never to have happened except when summers have been exceedingly hot), the degrees in which the citizens of the different towns of America were liable to the disorder, correspond exactly with the power of supporting heat conferred upon them habitually by their respective climates. Accordingly, the citizens of Savannah and Charlestown are almost equally exempt from the yellow-fever with Creoles."

In Norfolk, in Virginia, nearly *midway* between Charlestown and Philadelphia, this epidemic, (according to the accounts of the resident physicians), "in all cases, begins with strangers and new-settlers, affecting every one according to his time of residence, and leaving the old inhabitants not wholly exempt, yet proof against its destroying power." In Baltimore, Philadelphia, New York, and other *northern* towns, the old inhabitants have suffered severely; and the majority of those who died, were fixed residents. Again, the official account of the yellow-fever at Cadiz, in 1800, asserts, that " persons lately arrived in that city from the West Indies, did not suffer an attack of the epidemic," while those persons who had come " from *Canada* and *other northern* countries," were very liable to the disease. In farther corroboration of the general fact, it is observed, that, if the inhabitants of warm climates remove, for a few years, into cold countries, and afterwards return, they are then found liable to the fever.

From these data, then, of which we have given a very imperfect sketch, Dr Bancroft seems entitled to conclude, " that the joint influence of marsh miasmata, and of an atmosphere unusually and sufficiently heated, upon persons habituated to a cold or temperate climate, is, of itself, fully capable of causing an epidemic yellow-fever, exactly resembling that which has committed such ravages in the West Indies, the United States of America, and the south of Europe," &c. (p. 276.)

Having occupied so much of our space in following our author through his detail of arguments, and having thus brought his general principles before the view of our readers, we are compelled to desist from tracing, with him, the history of almost all the fatal remittent fevers, whether *yellow* or not, which have been recorded, as occurring in different parts of the globe. In the Fourth Part, which includes upwards of 200 pages, Dr Bancroft has brought together such a mass of fact and testimony,—all tending, in our opinion, to confirm the foregoing views, as has seldom, if ever, been collected into a focus, upon a medical topic, with so much perspicuity and force. We can only notice some of the leading points in his Appendix (No. VII.); the sole object of which is, to confute the statements of Dr Chisholm, respecting the origin and propagation of the yellow-fever, but especially as to its alleged importation from the coast of Africa to Grenada, in the ship Hankey.

In these statements, Dr Bancroft has, in our opinion, proved incontestably, that considerable incorrectness exists in the details of Dr Chisholm. We wish, however, that he had evinced less irritability on this subject, and expressed his disapprobation with less of personality; although these seem to have been excited by general accusations, not altogether decorous, on the other side, in which Dr Bancroft conceived himself involved. We say indecorous; for that epithet appears to be applicable to accusations of malpractice, founded on difference of opinion, where there were so many strong grounds for that difference, and where so many men of acknowledged abilities accorded in espousing the doctrine impugned. We profess our great respect for the learning and talents of Dr Chisholm, (of both of which this Journal has exhibited many proofs); but, "magis amica veritas:" we cannot but yield our assent to the views of Dr Bancroft, supported as they are in this work, upon the subject under discussion.

Dr Bancroft shows, that although Captain Beaver (of an early opinion of whom Dr Chisholm has availed himself) at first thought the fever on board the Calypso to be contagious, yet he was soon compelled by observation to relinquish that notion, as his journal and official letters prove. In a letter to the Bulama trustees, he ascribes the mortality among the people, to excessive labour and fatigue, the rains, the unwholesome climate and season, and to the great depression of spirits of the colonists; and in respect to the reported malignity of the disease, alleged to have existed in the ship, Hankey, he affirms, that "there was not the shadow of a foundation" for the assertion. Again, Lieutenant-governor Young, in his "return" of the Bulama adventurers, speaks of the fever as "of the *intermittent* kind, and *not infectious.*" Mr Paiba ascribes the mortality of the people to various causes; some having intermittents, some a more violent fever, some diarrhœa, others dysentery, and others again fell martyrs to the indiscreet use of opium and spirits, which they took as preservatives. Lastly, Dr Winterbottom, who was resident physician at Sierra Leone, when the Calypso arrived there, affirms that she "remained about six weeks, during which time upwards of *forty* of the crew and passengers died of the *remittent fever*, though *unattended with any appearance of peculiar malignity.*" Yet this was the fever said to be communicated to the Hankey. The Calypso had been in company six weeks, when she sailed on the 19th of July, 1792: yet at that time only *three* of the crew of the Hankey were ill of fever, and not one had been buried, when she sailed from Bulama, November 23d. For during the rainy season, the crew remained comparatively healthy, although shut up *with the sick* in the ship; while numbers of the colonists perished on shore: a tolerably clear proof that *miasmata*, and *not contagion*, produced the sickness. From the end of October, however, when they began to prepare for their departure, the crew were employed *on shore*, stowing goods, and in the dangerous occupations of cutting logs and watering the ship. After leaving Bulama on the 23d of November, the Hankey went to the unwholesome settlement of Bissao, and remained a week; and when the ship sailed thence, on the 3d of December, "three of the crew were taken ill of fever." This sickness was increased, Captain Beaver believes, by the *labour*, under the *heat* of the day and the *dews* of the night, "consequent on the ship's running aground on the 4th of December, in the Bijuga channel." In this situation she remained till the

8th; and, Captain B. adds, " the boat having been sent about 90 miles to Bissao for assistance, I find noted in the Hankey's log-book, on the day of her return, which was the 8th, all the people which came from Bissao in the pinnace taken ill." (African memoranda, p. 192.)

The Hankey arrived at St Jago on the 26th of December, and anchored at port Praya, in that island, January 4th, 1793; having then lost by deaths subsequently to her departure from Bulama, 8 of her crew, with 5 men, 3 women, and 2 children, colonists, who, as Mr Paiba states, were all unwell when taken on board. Here, Dr Chisholm states, they found the Charon and Scorpion ships of war, (these ships, however, arrived on the 13th and 24th of January respectively), who furnished the Hankey with two men each. Two of these, he adds, died of the fever, and the two others were afterwards put on shore at Grenada, " in the most wretched state possible." From this communication with the Hankey, he continues, " the pestilence was brought on board both ships; and of the Charon's crew 30 died, and of the Scorpion's crew about 15."—Now these statements are asserted to be erroneous, by Dr Trotter, Mr Smither surgeon to the Charon, Mr Paiba, &c. who affirm, on the contrary, that " no *fever* appeared in either of the men of war in consequence of this communication; they arrived at Grenada in *perfect health.*"—The Scorpion did not lose a single man during the whole voyage, and the Charon lost only *four*, from causes described by Dr Trotter, and wholly foreign to the Hankey." It is shown from the log-book of the Hankey, that only one of the four men, sent from the ships of war, died; and he was *unwell*, though able to do duty, when sent on board: " all the others were *perfectly well*" when the Hankey reached the West Indies, " and *continued so.*"

Dr Bancroft then traces the progress of the Hankey to Grenada, and ultimately to England, and it appears perfectly certain, " that every body on board the Hankey was well, when she arrived at Grenada, and continued so during her stay there, and also during the whole of her voyage to England, which is probably more than could be said of any other ship then at Grenada: so that, even if it were ascertained that an importation of febrile infection had then taken place, every other ship ought to have been suspected of it before the Hankey." 737. Dr Chisholm himself, indeed, ascribes the contagion to the infected baggage of the deceased colonists, and not to any living persons. But against this supposition, Dr Bancroft adduces some insuperable objections. Dr Chisholm has *apparently* traced with care the progress of the contagion first to Captain Remington, secondly to the crew of the Defiance, and thirdly to the crew of the ship Baillies. Dr Bancroft, however, brings forward the testimony of individuals, which leaves no doubt as to great incorrectness being committed in Dr C.'s details. Captain Remington had been out all the day and night in a boat; he had been wet through; he slept in his clothes on board the Hankey, and went back in an open boat the next day to his ship: "enough," says Mr Paiba, "to kill any one in that climate." Again, so far from being "seized with a *malignant pestilential* fever," and so far from having "the violence of his symptoms increased so rapidly as on the *third day* to put an end to his existence," as Dr Chisholm relates; Captain Remington was considered by Dr Stuart, his physician, as having a mild fever, "from *cold* caught on his passage up;" and Dr Stuart left him *on the third day*, without "any idea of his being in danger." It appears he died on the *eighth* day. With respect to the Defiance, *five* of her crew who visited the Hankey, are said by Dr C. to have "*all* been *immediately* seized with the fever," and to have all "died in *three days.*" This Dr Bancroft maintains is incredible. No *contagion* ever produced disease *immediately*: "the plague itself does not act with such celerity." And he thinks the great uniformity of its course in all is equally incredible. With regard to the crew of the ship Baillies, Dr Chisholm says, "these communicated the infection to the ships nearest to them, and it gradually spread from those nearest the mouth of the Carenage, where the Hankey for some time lay, to those at the bottom of it; not one escaping in succession, whatever means the captains took to prevent it:"—an effect, Dr Bancroft remarks, "which, if correctly stated, is much more like that of marsh miasma, than of contagion." p. 735.

When, in addition to these circumstances, it is recollected, that the Hankey, in her passage from St Jago to Grenada, remained nearly two days at Barbadoes, (all the passengers communicating freely with the inhabitants), and had a similar delay and communication at St Vincent's, without leaving any contagion;—that she had been three times cleansed and fumigated (viz. at Bulama, Bissao, and St Jago);—and that, on the other hand, the season, though early, was in an extraordinary degree hot, and suited to a copious production of marsh miasmata, the thermometer, according to Dr Chisholm's diary, rising at noon to 88° and 89°;—when all these points are taken into consideration, we think there can remain little doubt, that the mortality at Grenada originated, like that of other hot seasons in the same climate, from the endemic *causus*, or remittent yellow-fever.

Dr Bancroft quotes a striking proof of the *non-contagious* nature of the fever at Philadelphia, which Dr Chisholm supposes to have been imported from the West Indies, where it was derived from the Hankey. Dr Valentin has stated that, when the epidemic ceased, as usual, at the approach of winter, all the bedding, blankets, clothes, and other effects, which had been used by the sick in the hospital (appropriated exclusively to the reception of patients in the fever) at Bush Hill, "were sold to the agents of the French government, and employed for their sick soldiers and seamen, *without having been washed, fumigated, or even aired;*" yet there was never any appearance of disease thus communicated.

But we must desist from farther detail; and have left ourselves no room to enter upon any view of our author's opinions respecting typhus, dysentery, and the plague, which are discussed in the three chapters of Part V. Notwithstanding the length to which we have protracted this article, at the hazard of wearying our readers, we shall conclude by recommending them strenuously to make themselves intimately acquainted with the original.

III.

Essays on the Changes of the Human Body at its different Ages; the Diseases to which it is predisposed in each period of Life; and the physiological principles of its Longevity. The whole illustrated by many Analogies in Plants and Animals. By Thomas Jameson, M. D. Member of the Colleges of Physicians in London and Edinburgh, and resident Physician at Cheltenham. 8vo. pp. 360. London, 1811. Longman & Co.

Dr Jameson has certainly committed an error in the very outset of his work; for instead of dedicating it to Dr Baillie, who must already have something more than a smattering of information on this subject, and has no time for reading, he should have addressed it "to the Hypochondriacs of the United Kingdom;" who would perhaps ardently peruse it; who would just find a sufficient smattering of medical knowledge in it to puzzle them, and make them wish for more; and who would probably, therefore, visit Cheltenham, and Dr Jameson forthwith, in order to learn from the latter how to expound scientifically all the singular processes of their internal organs, and then to drink of his newly-discovered well, and wash away all the feces from their bowels, and the fancies from their heads.

But while this book is calculated to puzzle the hypochondriac, we fear it is not likely to inform the physician. For in truth, it contains a most abundant store of commonplace and superficial observations, which, we think, have only not been collected before, because no one has deemed them worthy to be collected. This, however, is not the ground upon which the author anticipates critical censure: he seems fully persuaded of the magnitude and importance of the knowledge which he has compiled; but he fears only the lash of criticism, from his peculiar decision of many profound and long disputed questions. "No doubt, the constant application of forty-four years to the science of medicine, must indicate a life sufficiently long," he says, "to entitle the author to form some judgment of the changes of the body by age, from personal experience, &c." *pref.* xv. But, on a subject which numberless physiologists have touched upon, and on which every man living is more or less informed, (for it is to this sort of observation that the adage applies, when it affirms, that "every man is either a fool or a physician at thirty"), there is the less necessity for a grey beard on the chin of the compiler, and the greater difficulty of rendering the compilation interesting by originality of observation or novelty of fact. And we are sorry that we cannot express any higher approbation of our author's logical disquisitions, than of his observations and reflections upon the detail of facts.

We cannot pretend to enter into a minute analysis of this treatise, but must content ourselves with presenting some specimens of its execution, in justification of the remarks we have made.

With respect to the physiology, he tells us, in the ordinary way, that the *living principle* "is an *invisible agent* of which we can form no competent idea;" and in a note it is said, "The consideration of soul the author leaves to divines, and has only to observe, that he *is sensible* of something existing within him *independent of the matter* of the body, which *will exist* after its dissolution." p. 7. By what "sense" does the author discover this, which has been the subject of doubt and discussion among philosophers in all ages? But in the arrangement of his "principles" our author commits the same abuse of language, which has puzzled men in all ages in the investigation of the plainest questions. Besides this "principle" of life, there are other principles; there is a sort of trinity of lives; for instance, "*Vegetable life*, depending upon the irritable principle, which causes the contraction of matter, and gives a peculiar action to the different organs. *Sensitive life*, arising from the addition of sensibility to the irritable power, which is discovered in invertebral animals, by expressions of desire and pain. And *Cerebral life*, where impressions are transmitted to a common sensorium, the source of ideas and thought, as is discovered in vertebral animals."

But we have also a *principle* of growth, "stated by some authors to be a principle entirely different from the former ones." "Growth, like irritability," says Dr Jameson, "*exists* in bodies after their nerves are divided; but it does not in all things correspond exactly with the laws of irritability in either kingdom." He, however, believes, "that it is intimately connected with the *irritable principle*;" and he goes on to inform us, that the former *principle*, growth, is a stimulus to the latter; and mistaking effect for cause, observes, that "the *stimulus of growth* produces a quick circulation of nutritious fluid over the system, intended, no doubt," (how sagacious!) "for a speedy supply of arterial blood, containing new matter, to enlarge the size of parts." p. 12. In conclusion, he sagely informs us, that "it is the perpetual application of fresh particles of nutritious matter to the substance of the body, that prevents its putrefaction, and sustains the growth of the various parts. We accordingly find the nails and beard renewed by protrusion, soon after they are cut away; the circulating fluids of healthy young persons, undergoing total renovation in the space of a few days; the soft solids are completely renewed in a few years, and, according to some authors, within periods of five years, *by them called lustres.*" p. 18. Dr Jameson actually supposes, it would seem, that these physiologists invented the term *lustre*, to denote a period of five years; a proof of the extent of his classical reading.

Dr Jameson, with the intention of being properly methodical, divides "life into *five* periods, each of which possesses (he tells us) a distinct degree of vigour." p. 23. These are the *fœtal state*, infancy, youth, manhood, and old age; and by a singular arithmetic, he informs us, that "each of these periods will be subdivided into two epochs," (i. e. according to Cocker, into *ten*), "to mark more distinctly the different degrees of strength at their beginning and end, which will bring them near to the *seven* ages of Hoffmann" (p. 25.): and still further to sanction his arrangement, he quotes at length the speech of Jaques, in "As You Like It," reminding us of the sagacity of the immortal Shakespear," in detecting this exact number of ages. In one point, however, Dr Jameson's epochs differ from the seven ages of Shakespear and Hoffmann, in as much as neither of these sagacious writers have an *age* before birth.

All this, we think, tends to confirm our opinion of the mistake committed in the dedication; for these profound discussions could only be expected to interest "the lean and slippered pantaloons," who are engaged in tours to watering-places, and visits to physicians, and whom he intends to astonish by his logic and philosophy. Surely he could not address the following *arguments* to Dr Baillie, or any other physiologist, in proof of the accuracy of this division.

"The coincidence of *our divisions* (i.e. those of Hoffmann, Shakespear and himself), with the climacteric years of the ancients in Greece and Arabia, is not unworthy of particular attention. Pythagoras, who derived his knowledge from the Chaldeans, Phœnicians, and *Grecians*, applied the number seven to all sciences physical and divine; and his opinions prevailed so generally, that Hippocrates introduced the doctrine of *time combating diseases*, or critical days in fevers, upon septenary principles. This doctrine became the theme of Galen, as well as of most of his followers, &c. The late Dr Cullen was decidedly of opinion, that fevers had a tendency to change upon quaternary and septenary days," &c. And then he overwhelms us with a chronological *argument* in a note. "This doctrine of numbers, therefore, prevailed a great length of time, as appears from the authors we have quoted, who have written in favour of the subject. Pythagoras flourished about 500 years before Christ, Hippocrates about 150 after him, and Galen 200 after the birth of Christ. Stahl's work, Theoria Medica, was published in 1708: Hoffmann's *Oper*. Om. Annorum Climactericorum *was* published in 1748; and Cullen's First Lines were published in 1778." p. 27.

After describing the peculiarities of each age and epoch, Dr Jameson, in his remaining pages, goes over the whole nosology, medical and surgical, enumerating "all the ills the flesh is heir to." With a few specimens of his sage observations on the former part of the subject, we shall take our leave. The *first age* of life being completed, by the obtrusion of the child from the uterus of its mother, they are still not without connexion.

"Bonds of union still exist between the mother and child; for it has no sooner acquired the powers of voice, than a *connate sense of hunger* impels it to make demands for the assimilated nutriment it *has provided for itself*, and phosphate of lime, which abounded in the mother's urine, is now found in the milk of the breast ready for the consolidation of the infant bones. The children of this country are *therefore* put to the breast in six or eight hours after birth," &c. (63.)

The next great change, the author tells us, is observable in the first dentition, the ordinary progress of which he describes; and remarks, that "the round faces of children gradually assume a new appearance as the teeth develop. Thus, the jaws are nearly semicircular until three years of age; but *lose their rotundity* afterwards, *by elongation* of the maxillary bones." (64.) "The skin, in early infancy, is soft, vascular, and possessed of so much delicacy, that it is liable to excoriation from the smallest neglect of cleanliness, which is the reason that the breach of infants is so often inflamed by the urine. The numerous capillary vessels of the skin exhale copious vapours of a less acrid nature at the beginning than at the end of the period. These preserve the surface in a moist and sensible state; but as the cuticle and subjacent mucus indurate by air and pressure, the skin loses part of its transparency and florid colour, and becomes gradually more firm and less irritable. The most important condition of the external surface in this early age, consists in its extreme sensibility, from an *almost bare state of the nerves*, covered only by a fine thin cuticle. *In this way*, the nervous papillæ of the fingers become a valuable means of storing the young mind *with accurate ideas*, and of correcting errors of the other senses, in their most imperfect state. It has therefore been calculated that the mind acquires more ideas in the three years succeeding birth, than in all the rest of life.

"The extreme sensibility of the whole body proves, at the same time, the cause of numerous painful sensations, and of many of the cries of new-born children, so generally imputed to a sense of hunger, since they begin to smile, and to *exhibit* more plesing *sensations* as the skin becomes more indurated, about five or six weeks after birth," &c. &c. (p. 65.)

Thus we are to ascribe the effects of the development of the faculties of the mind commensurate with the growth of the organs of the body, to the induration of the skin! and to attribute the knowledge that results from the comparison of the impressions upon two or more senses at the same time, to the peculiar sensibility of infantine papillæ! But we are weary of these "magnæ nugæ, magnis conatibus."

IV.—V.

The Trial of Michael Whiting for administering Poison to George and Joseph Langman, at the Assizes holden at Ely, on Wednesday the 4th of March, 1812. Taken in Court by THOMAS LEIGH. 8vo. Cambridge, 1812.

The extraordinary Trial of Daniel Dawson at the Assizes held for the County of Cambridge, on Friday, March 12, 1812, *on an Indictment charging him with poisoning the Eagle Colt, the property* *of Sir F. Standish, at Newmarket.* Taken in Court by GEORGE KENT. 8vo. Newmarket, 1812.

IT is almost unnecessary to remark, that two more important charges than those stated in the above indictments, seldom or ever came before a court and jury for their investigation and final decision. In every point of view, poisoning is a dangerous and aggravated species of murder, not only on account of the difficulty in detecting it, but of the deliberate malice with which it is perpetrated, its cruelty, and the impossibility of guarding against it. Until lately, however, the mere intent to murder by administering poison was not a capital offence. But by an act of parliament passed in the 43d year of his present majesty, commonly called Lord Ellenborough's act, it is enacted, that, if any person shall wilfully and maliciously administer to, or cause to be administered to, or taken by, any of his majesty's subjects, any deadly poison, with intent to murder, he, his counsellors, aiders, and abettors, shall be guilty of felony, without benefit of clergy. We have had occasion to allude to this act upon a former discussion of an important question of forensic medicine; and indeed, when ordinary interests are concerned, medical men are seldom consulted in courts of law, so that an acquaintance with every thing relating to this act may truly be set down among the most important articles of professional information.

The facts of Michael Whiting's case were clearly and fairly stated by the counsel for the prosecution; and, from his address to the jury, we shall select the following particulars:—The two prosecutors in this indictment were George Langman and Joseph Langman, both minors, living as housekeepers at Downham, with Catherine Carter, their servant or housekeeper, and their younger sister, Sarah Langman. These four persons constituted the whole family. The prisoner, Whiting, was a shopkeeper at Downham, and he dealt in bread, flour, drugs, and various other articles. He was related to the Langmans by marriage, having married their eldest sister, and, in the event of their death, he expected to get some property. The first witness called, Catherine Carter, the housekeeper, declared, that on Tuesday morning, the 12th of March 1811, about seven o'clock, she sent the child, Sarah Langman, to the house of the prisoner for a loaf. They usually baked their own bread, but they happened on that day to have none in the house. The prisoner came himself with a loaf a short time afterwards; he inquired whether they had any flour in the house, and finding they had not, said, "he would send them a little flour and meat to make a pudding with." One of the brothers, Joseph Langman, replied, that they did not want any; but, notwithstanding this, the prisoner returned in about a quarter of an hour, bringing a bason containing some flour and pork. The witness was going that morning on a visit to a neighbouring village. Before she set off she took some milk and attempted to mix this flour up, and make a pudding or dumpling with it. She found it mix with great difficulty; she did, however, make four dumplings, two containing pork, and two without: the two former she tied up in bags. Having done this, she, about nine o'clock, set off for Chatteris, and returned the next day. The child, Sarah Langman, went to the prisoner's house on Tuesday, and continued there until the Wednesday morning. The brothers, George and Joseph Langman, were both employed in the garden near to the house during the morning, and never went off the premises. The elder went in about twelve o'clock, and, knowing these dumplings were provided for their dinner on that and the succeeding day, he took two of them, put them into an iron pot, with some potatoes, and boiled them for dinner. About one o'clock they came and sat down: they each ate a few mouthfuls of the dumpling containing the pork, and also some of the pork, but immediately perceived them to be very bad tasted, and so disagreeable that they could not proceed in eating their dinner. Before any effects were felt from the part of the dumpling they had eaten, George Langman went out of the house, and gave a piece (about one quarter of it) to a sow in the yard. This sow became violently sick almost immediately after eating it, and continued ill several days. He himself, and his brother, in a short time after became affected with extreme sickness, and violent pains in the head: he himself was ill about an hour, but his brother was ill for two or three days. He threw the remaining part of this dumpling into the garden; he afterwards buried it in a spot he could particularly ascertain. On the next day it was dug up again, and given to a magistrate, who sent it to the professor of chemistry at Cambridge, who examined the paste, and discovered corrosive sublimate mixed with it, in considerable quantity. Professor Wollaston also examined the unboiled dumplings, both of which he found were made of the same poisoned ingredients as those which had been tasted. When the prisoner heard that George and Joseph Langman had been very sick, and that their sickness was attributed to something poisonous in the flour which he had carried to them, he emptied out the remainder of the flour (which was about two stone) into the privy, and *washed out the bin* in which the flour was kept, so that not a vestige of its contents remained. The conduct of Whiting, when he was brought before the magistrates to answer so foul a charge as this alleged against him, confirmed his guilt; for he attempted to vindicate himself by telling a series of lies. He denied ever having had any such a poison as corrosive sublimate in his house; but it appeared from the evidence of the person from whom he purchased his stock in trade, when he commenced business four years before, there were four ounces of that article among various other drugs then purchased. The examinations of the prisoner before the magistrates were read by the officer of the court, after which the chief-justice of the Isle of Ely, Edward Christian, Esq. recapitulated the whole of the evidence to the jury; and the jury, after having conferred together for about ten minutes, brought in a verdict of *guilty*. The prisoner made a full and free confession of his crime to the clergyman who attended him in gaol, a few days only previous to his execution.

The other case is an extraordinary one. There is no case precisely similar to be found in any report; and it is to be hoped the like will not occur again. Within these few years many instances have happened of horses being poisoned for the purpose of betting, at Doncaster, Brighton, and Newmarket, which created an alarm that nearly annihilated the amusements of the turf. At length the guilty wretch was detected, and he and his base associate have been brought to justice; but the prisoner, Dawson, was acquitted, owing to some flaw in the indictment, which charged him with being a *principal* in the alleged act of poisoning the horses, when, in truth, he was an *accessory before the fact*. There was another question which arose out of the case, whether any *offence* had been committed by the prisoner; but the judge decided, without hearing the arguments of counsel, that the prisoner must be acquitted, on the ground that the law did not recognize him as a principal. In consequence of the abrupt termination of this trial, a full disclosure of names, persons, and circumstances, was prevented, which would have established the facts of the case, and brought to light a detestable horde of conspirators, who, like parasitic animals, fatten on the vitals of a more noble species. Our readers will be glad to hear, that Dawson is still held in Cambridge jail for trial at the next assizes, on a similar indictment. In the present case he was indicted for feloniously, wilfully, and maliciously, infusing into a certain trough where horses watered, six ounces of poison, called white arsenic, and thereby killing a colt, the property of Sir F. Standish. In a second count, the prisoner was indicted for procuring the said white arsenic, by which the colt was poisoned. In a third count it was alleged against the prisoner, that he had caused the horse to drink of the poisonous water. In the fourth and last count, he was charged generally with killing the said colt. This was not an offence which was recognized at common law; the indictment was founded on a statute of the 9th of Geo. I. ch. 22, which was found necessary to prevent and punish offences so pernicious to society, as the wounding, maiming, and killing of cattle.

The principal evidence in this case was a man named Cecil Bishop, *particeps criminis*, who, we are ashamed to confess, belongs to our profession, having been brought up a chemist and druggist, and employed, in 1809, as assistant-apothecary at Guy's Hospital. He was base enough to misapply what knowledge he had acquired by a superior education, to furnish Dawson with solutions of corrosive sublimate, and of arsenic, and even to aid and assist him in his nefarious projects, by injecting, with a syringe, arsenical solution into the watering-troughs at Newmarket, and thus to destroy the lives of four valuable horses, besides endangering many others. Several witnesses were called, whose testimony corroborated this wretch's confession of his infamy and guilt; but the most material is that of Mr Bowles, veterinary-surgeon at Cambridge, whose evidence, founded upon chemical and comparative pathological experiments, is satisfactory and conclusive, though, we regret, no trials were made upon the contents of the stomach and intestines.

'Mr Bowles stated, that he was called in to attend the poisoned horses at Newmarket, on Wednesday the 1st of May, at Mr Prince's stables. He found six horses very ill. Sir F. Standish's colt was pointed out to witness, and he attended the colt till he died. When witness first saw the colt, he was hanging down his head, appeared to be in great pain from the intestines, and died on the following day. On opening the colt, witness found the stomach and intestines very considerably inflamed. There were different sorts of inflammation, but in this case appearances were different from common inflammation; it was from the stomach throughout the body; and witness had no doubt it caused the death of the horse. He had tried by a chemical test, by lunar caustic, the water which he had received from Mr Prince. The effect was, that the arsenic sunk in a yellow cloud. Mr Bowles went on to prove, by his experience, that there was solution of arsenic in the water, and he had since prepared some in the same manner, which had been administered to three horses by way of experiment. In one instance witness opened a horse, and the appearances of the stomach and intestines corresponded with those of Sir F. Standish's colt, and he had no doubt the whole was produced by arsenical preparation."

VI.

On Bilious Colic and Convulsions in early Infancy. By JOSEPH CLARKE, M. D. Honorary Fellow of the Royal College of Physicians, Dublin, and M. R. I. A. *(from the XIth volume of Transactions of the Royal Irish Academy).* Dublin, 1811.

THIS is a practical paper, which communicates the result of the author's experience in a class of diseases, either too much neglected, or improperly treated, and therefore terminating often in death. In the beginning of his practice, Dr Clarke remarks, as long as he pursued the beaten track—of employing mixtures of rhubarb and magnesia, solutions of manna in fennel water, chalk, volatile alkali, musk, opium and blisters—recovery from convulsions in early infancy was a rare occurrence. Now the case is happily reversed, and death rarely happens. The means which have brought about this pleasing reformation, are fully detailed in this paper; and it seems that we are indebted for the publication chiefly to Dr Hamilton's work on purgative medicines; for the author doubts whether he should have had courage to submit his observations to public notice, unless he had been roused and encouraged by the success of that work. Here is an instance, and we believe many might be quoted, in which the publication of a physician's observations and experience, however widely his plan of treatment differs from the ordinary routine, does essential good, not only by directing young practitioners in the right path, but by calling into notice the remarks of older ones, who have long followed the same course. We are persuaded Dr Hamilton's work has justly become so popular, as much from its confirming the experience of those who have long thought and acted for themselves, since they escaped from the trammels of system and nosology, as from the decided tone which it holds out to young men, who are just beginning to prescribe alone, whilst the patient and his friends keep their eyes stedfastly fixed upon every thing that he says and does.

Dr Clarke considers all the bowel complaints of infants, previous to dentition, described under the various appellations of inward fits, costiveness and wind, gripes and green stools, (to which he adds bilious colic and convulsions), as stages of the same disease, and to be more or less connected with the free or restrained discharges of the bowels. In a former volume of these Transactions (vol. VI.), he expressed an opinion, that a large proportion of these discharges is bilious; and he now adds, after sixteen years' close attention to the subject, that in colic and convulsions, nothing but a brisk expulsion of the contents of the bowels is likely to afford permanent relief. Thus he says—

"To effect such expulsion is frequently a task of the utmost difficulty, and requires remedies of the most powerful nature. When an infant is seized with violent screamings, and refuses to suck, drawing its lower extremities occasionally towards the abdomen, the existence of colic may be safely inferred. On inquiry, the infant may be reported to have had frequent stools; but, on *inspection*, they will generally be found scanty, often green.

"A dose or two of castor oil, or a common purgative enema, will often remove slight attacks of this nature. It is in general after the failure of such measures that a physician's advice is required. My practice of late, in urgent cases, is to order twelve grains of calomel to be rubbed with equal quantity of refined sugar, and divided into equal parts, one to be given immediately in a little of the nurse's suck, and in an hour after a tea-spoonful of castor-oil. And alternately calomel and castor oil are directed to be repeated every hour, until the bowels are freely purged, and the infant obtains relief. I have frequently found that, before my visit on the succeeding day, ten or twelve doses of each have been given and retained on the stomach. The general effect is many motions; but, on inspection, not more than one or two copious. The relief from pain is often considerable, the convulsions have ceased, and the infant resumed its former habit of sucking. I then direct the powder and oil to be repeated every third or fourth hour, more or less frequently, according to the degree of ease the infant appears to have obtained, and the freedom of its discharges. On my third visit, the bowels have generally discharged a prodigious quantity of green and apparently acrid bile; and hence I have denominated the colic *bilious*. In the course of recovery, the quantity of evacuation seldom fails to astonish the attendants, who cannot well comprehend whence it can all be derived. The relief obtained is uniformly proportioned to the quantity discharged. After the third day a calomel powder is given, perhaps night and morning, until the 4th or 5th, and castor-oil now and then, when the infant is uneasy. Where the frequent repetition of the oil nauseates the stomach, or where it produces little effect at the end of twenty-four hours, I substitute a dessert spoonful of infusion of senna, sweetened and warmed with fifteen or twenty drops of tincture of jalap." p. 124.

VII.

Cases of Apoplexy and Lethargy; with Observations upon the Comatose Diseases. By J. Cheyne, M. D. Fellow of the Royal College of Physicians, Edinburgh, of the King and Queen's College of Physicians in Ireland, &c. &c. London 1812. 8vo. pp. 224.

This is the work of a diligent and faithful observer, who has already distinguished himself as a clinical student. Early introduced to extensive and general practice, with a zeal and industry highly praiseworthy, Dr C. has continued to note the cases of his patients, to record any important observation, to study, in detail, the living features of disease in the sick-chamber, and to trace the connexion between symptoms and disorganization, by inspecting the bodies of the deceased. In thus contemplating the phenomena of hydrocephalus acutus, and preparing the materials of his essay on that disease, his attention was naturally directed to the general pathology of the brain; and the work now before us is, in part, the offspring of this study. That it had become necessary to reconsider the history and treatment of apoplexy, will very readily be acknowledged, when we recollect the late controversy which arose out of a dispute on a point of practice, between Dr Langslow and Mr Crowfoot, and with what animosity and contradiction of fact and argument, that controversy was maintained in the journals of the day. The sophistical argument too of Dr Fothergill against blood-letting in apoplexy, had, we believe, influenced the understanding of too many practitioners, and restrained the use of the most powerful remedy we possess for the prevention or cure of this disease. To those who have entertained any doubts on this subject, we recommend a careful study of Dr Cheyne's Cases and Observations. The work is truly clinical, and completely instructive on this point. The author is merely the historian of what he has seen—of what, indeed, all may see who choose to open their eyes. He has no particular conceit or hypothesis to deform the picture, and his observations are generally inductive, and when otherwise, are hazarded with the most becoming candour and modesty. The general history of apoplexy is good, and conveys a very just picture of the disease. It contains, however, no observation of sufficient novelty or importance to detain us. We wish, perhaps, that Dr Cheyne had dwelt more particularly on the presaging signs and symptoms of disease which mark the apoplectic diathesis, and precede often, for a long time, an impending attack.

His account of the morbid appearances exhibited on dissection, claims more particularly the reader's attention.

In dividing the scalp, there is often a great flow of blood from the occipital and frontal veins; indeed, during the whole of a dissection, the blood flows from all parts of the head; first from the superficial veins, and then in streams from the sinuses, so that the quantity collected amounts to one or two pounds, or even more. The dura mater is sometimes thickened, and bound to the cranium by the strongest adhesions. The tunica arachnoides is occasionally found thickened and opake, and the pia mater remarkably vascular; the veins are not only turgid, but there often appears, also, high arterial action, evidenced by a bright vermilion tint, scarlet extravasations, the membrane seeming as it were blood-shot. Between the pia mater and arachnoides, there is often observed serous effusion, colourless, turbid, bloody, and even mixed with streaks of coagulable lymph.

The substance of the brain is often unusually firm, and when cut into, the numerous points of blood show that the divided vessels are enlarged. The ventricles are often enlarged, and contain serous fluid in considerable quantity.

"For the most part, extravasated blood is found within the cranium, sometimes between the membranes, sometimes in the substance of the brain. Sometimes, bursting the walls and floor of the ventricles, we find a great effusion of blood both in the substance of the brain and in the ventricles. Coagulated blood has been found in various parts of the cerebrum and cerebellum of the same subject; and it has been found in the theca vertebrarum. I have never seen extravasation of blood on the surface of the brain, which did not appear to have arisen from a rupture of its substance; but in a case communicated to me by a friend, the blood seemed to have flowed from a number of the smaller arteries of the pia mater."—"When blood is extravasated into the substance of the brain, it is contained in a cavity, the walls of which are uneven and ragged; and in this irregular cavity, the substance of the brain is generally so mixed with blood, that we cannot wash the blood away without carrying along with it portions of the medullary matter."

He has seen the basilar and internal carotid arteries considerably enlarged. But the extravasation of blood seldom if ever is found to proceed from the rupture of a considerable branch; it has never occurred to his own observation. He denies the general or frequent existence of aneurisms, ossification, or other evident diseased state of the arteries of the brain, as the predisposing cause of these effusions and extravasations of blood in the brain, which almost always arise from the minuter vessels of its substance.

"It is not by the scalpel alone, that the anatomist can demonstrate the state of the vessels which pour the blood into the substance of the brain during apoplexy; but in many cases after he has exposed the seat of the extravasation, he may, by means of a syringe, or by a patient use of a camel's-hair pencil, by washing away the broken portions of the brain, and carefully removing the larger masses of the blood, at last, all along the walls of the irregular cavity, show many vessels not larger than a human hair, ending in small clots of blood; and he will sometimes find the same appearance in various and distinct parts of the same brain. Hence it seems, that the bleeding does not depend on erosion, nor is it owing to aneurism, nor ossification, but to a great and simultaneous action of the smaller arteries of a hemisphere, or of the whole brain; an action which, strong as these arteries are, they in general are unable to bear without a rupture of their coats."

Generally, then, the appearances observed in the brain of apoplectics may be thus summed up.

"The remains of an excited state of the minute arteries of the brain and its membranes, this probably being the most important, as it is the most unvarying appearance; then the extravasation of blood, probably the consequence of the excited state of the vessels; the turgescence of the venous system; the enlargement of the ventricles, partial and general; and lastly, the serous effusion which is generally found in various parts of the brain, and which would seem to imply previous absorption of the brain. Again, apoplexy," he observes, "is probably not so sudden a disease as is generally thought; or rather the attack appears connected with changes which have been going on for a considerable time. This opinion is supported by the duration of the disordered functions, which denote the apoplectic diathesis, and by the various appearances which are observed on dissection: the substance of the brain is changed in consistence; the membranes have lost their transparency; and we seldom make a dissection after apoplexy, without detecting preternatural serous effusion."

Such is the condition of the brain in the disease distinctively called *sanguineous* apoplexy. The existence of *serous* apoplexy has been by some entirely denied. It is surely of much rarer occurrence; and the symptoms which have been described by authors as distinguishing it, are not to be trusted to, as they have repeatedly been observed in those cases, which dissection has afterwards proved to have been sanguineous. In one case only of the many which have been attended by Dr Cheyne, have the appearances of serous apoplexy been exhibited on dissection;

there was extensive serous effusion, without extravasation or congestion of blood; the substance of the brain was unusually soft; but even here, the pia mater exhibited signs of inflammation, and the increased number of its minute blood-vessels, bore testimony to the co-existence of increased vascular action.

> "When we find, after a fatal case of apoplexy, that we can uncover the brain, without the escape of a single drop of blood; that the brain is soft and colourless; the ventricles enlarged, and perhaps distended with serum; the plexus choroides pale; we see a very different disease from what is described in this volume at such length, and which Galen has emphatically characterized, 'multo nimirum sanguine in principium animantis confertum irruente.'"

He has been told by a celebrated anatomist,

> —"that the morbid appearances of the brain, after what was considered serous apoplexy, when instantaneously fatal, as when a man walking quietly along has dropt down dead in the streets, have sometimes barely enabled him to give such an account of the dissection, as might seem to explain the patient's death. And in confirmation of this remark, Mr Fyffe the anatomist informs me, that in several instances he has scarcely been able to detect any morbid appearances in the heads of persons who had died suddenly, as was supposed, of serous apoplexy. Perhaps a little watery effusion on the surface of the brain, between the convolutions, or in the ventricles, was all he had to note."

The fourth letter of Morgagni, which treats of serous apoplexy, contains fifteen or twenty cases, with dissections; but of these only three appear to belong to this variety. Upon the whole, Dr Cheyne infers, that serous apoplexy, compared with sanguineous, is a very rare disease. We are still left in the dark during the life of our patients, as there are no symptoms sufficiently characteristic of it, to distinguish it from cases of sanguineous congestion and effusion. The aged, the pale, and leucophlegmatic have had the brain lacerated and injected with blood.

These pathological observations are of the utmost importance. It appears that, in almost every case of apoplexy, there is a high excitement of the vessels of the brain; that the effusion of blood, no less than the serous effusion, proceeds generally from minute vessels, from a number of extreme branches, and not from the rupture of any larger trunk or branch; and consequently that much may be done to obviate the diathesis, and, when the attack has taken place, to recover the patient, by preventing or moderating the effusion. The most prompt and effectual means of doing this, would seem to be, to lessen the excitement and turgescence of the vascular system, by unloading the vessels, and lessening the propulsive power of the heart and larger arteries. And this is surely the means which the experience of ages has shown to be the most prompt and effectual. The most obvious means of accomplishing our indication, has indeed been calumniated, and by some physicians neglected. Dr Cheyne has, therefore, at great length, redargued the subject, and removed, we think, every objection which can be opposed to blood-letting, which he is convinced is not only the most effectual remedy in apoplexy, but much more effectual than all others in use. Our own experience, which has not been inconsiderable, and we may add, we believe, that of all the physicians of this school, entirely coincides with that of our author. Nothing can be more fallacious, than the celebrated observation of Dr Fothergill. Of those who are attacked with apoplexy, undoubtedly many die, and others who survive remain paralytic in some of their limbs; because the brain has already suffered irreparable injury from effusion of blood, and laceration of its substance; an effect which blood-letting never can occasion, which it never is known to produce in other diseases, and which never follows epistaxis, or other natural hæmorrhages, however profuse, but which such evacuations are most likely to obviate and prevent. The only case, perhaps, in which we would hesitate to bleed, is serous apoplexy. To the inference drawn from this case, as an argument against blood-letting as a remedy in apoplexy, Dr Cheyne replies—

> "The physicians who object to blood-letting in apoplexy, lest the attack should be of the serous kind, are bound first to teach us how to distinguish this species; and secondly, to prove, that blood-letting is injurious to a patient in serous apoplexy; neither of which they have done.
>
> "Cases are recorded, in which the vessels of the brain have been found gorged, or in which blood has been extravasated, in pale, relaxed, emaciated old men and women, who have led a life of temperance, or even abstemiousness; therefore, the existence of serous apoplexy is not determined by the appearance, the age, sex, nor even by the habits of the patient; yet these are the circumstances upon which the diagnostic hitherto has been rested. Most professional readers know how long and how well Morgagni and Portal have studied pathology; yet we in vain seek in the writings of either, for certain means of distinguishing serous from sanguineous apoplexy. For the mere practical physician, Portal indeed has cut the knot, by recommending the same treatment in both varieties."

The case of serous apoplexy is comparatively a rare one, and even in it there are marks of vascular excitement. Dr Cheyne tells us that he has attended fifty fatal cases of apoplexy, and of these only one was a case of serous apoplexy.

"Now," he observes, "admitting this proportion, that there are fifty cases of sanguineous apoplexy which require the physician's assistance, for one of serous, (and as some distinguished physicians have altogether denied the existence of serous apoplexy, it is probable that I have not overrated the proportion), we may find an argument in favour of blood-letting, which will not be easily overturned upon the relative frequency of the two species of the disease."

In the treatment of apoplexy, we must recollect the urgency of the case, and the cause which is destroying the brain. Our object is to diminish vascular excitement, and to prevent or moderate a destructive effusion, which would put an end to life; and, as in pneumonia, we must persevere till this object is accomplished, or till there is no longer hope of accomplishing it. A few ounces of blood will not do this in either case. We must bleed largely, and repeat the operation according to the necessity of the case." "It ought to be known," says our author, "that from six to eight pounds of blood have been taken from a person by no means robust, before the disease, which ended favourably, began to yield."

The other remedies which are commonly employed in apoplexy are emetics, purges, and blisters. On each of these Dr Cheyne has favoured us with excellent remarks. He enters into the argument on the subject of emetics, and discusses it at considerable length. He has shown, we think, in a very satisfactory manner, that where the stomach is evidently overloaded by recent crapulence, this evacuation, excited by the most gentle means, may become necessary and useful; but that generally emetics are improper remedies in apoplexy. Purgatives are, on every principle of reason and experience, to be preferred for relieving the stomach and primæ viæ in this disease. Of blisters, his experience does not speak very highly. They do not seem very applicable, more particularly in the beginning of apoplectic attack; and though he has often had recourse to them, he has never distinctly seen a patient in apoplexy relieved by blistering.

Having concluded his general history of apoplexy, and thrown much interesting light on the pathology and the therapeutics of this disease, our author proceeds to the relation of his cases and dissections, twenty-three in number, which is followed up by a luminous and instructive commentary. But these observations, however valuable, our limits oblige us to pass over for the present.

We must, however, take some notice of our author's opinions on the subject of Lethargy. His observations have led him to question the propriety with which Dr Cullen has classed such diseases as catalepsis, extasis, carus, cataphora, and lethargus with apoplexy, between which and these diseases there is, he thinks, a distinction which should be restored.

A fair and delicate scrofulous girl, Dr Cheyne had repeatedly seen affected in the following manner: "Her eyes became fixed, and without expression; her eyelids dropt, but not so completely as to cover the pupil; her complexion did not change; she was to every appearance insensible, and her breathing was so low that it was not to be heard. Her body lay in the position in which it was when the fit seized her. She had no warning of these attacks, which generally lasted some minutes; her friends knew the fit was over when they heard her sigh. She died before she reached her fifteenth year, of an attack of melæna."

Such cases as this, cases of somnolency, of sudden confusion, and loss of memory, with little or no diminution of the power of sense and motion,—cases in which the patient is torpid, and passes much of his time in sleep, so deep that he cannot easily be roused, and, when excited to look up, or answer a question, again relapses into profound sleep,—differ widely from apoplexy in many particulars; and, until the time of Dr Cullen, was carefully distinguished from it, by the names of lethargus, cataphora, and carus.

There are considerable affinities, however, between all these diseases; and, notwithstanding the very judicious observations now before us, there still appears to be much difficulty attached to this inquiry. It may be easy to decide upon a case of lethargus, or even of cataphora; but between carus and apoplexy the diagnosis is obscure; and from the slightest case of lethargy, to carus, or apoplexy, there seems almost an insensible gradation.

"A sudden and permanent loss of recollection, with torpor and somnolency, has been called a paralytic attack; but when unaccompanied with loss of muscular power, or of sensation, it is with more propriety to be considered as lethargic."

Undoubtedly, in such a case, the distinction is evident. But in the extreme case of lethargy, as in carus, the patient is not to be excited by noise, shaking, or even by pricking or pinching the skin. In carus any attempt to rouse him is unavailing.

Again, in the beginning of apoplexy, the patient may be excited,—he starts when pricked with the lancet; but as the disease advances towards a fatal termination, he becomes more and more insensible, and no kind of excitation affects him. Indeed, Dr Cheyne has alleged, that it is by no means uncommon to see carus after apoplexy itself; the patient, after a certain time, becoming pale, with a slow depressed pulse, breathing softly, but totally inexciteable. Thus then, lethargy, cataphora, and apoplexy, and carus, are in regular sequence, and sometimes pass into each other; and if we take serous apoplexy as another link, we shall find the whole subject still perplexed with infinite difficulty.

Generally, however, it appears, that there is not a necessary or constant connexion between lethargic and apoplectic diseases. A propensity to sleep, and a forgetfulness of recent events, are the leading symptoms of lethargy,—symptoms which are often found to occur without any loss of sensation or of voluntary motion; and persons in hemiplegia are often in possession of every intellectual faculty;—their memory may be unimpaired, and, so far from being lethargic, we not unfrequently find them restless, and complaining of want of sleep.

It appears also, that these different states of lethargy and apoplexy are represented by different states of the brain. In lethargic complaints, the diseased appearances are most remarkable on the surface of the brain, which is found covered with serous effusion; and the membranes, particularly the arachnoides, under which much of the watery deposition is confined, are opake. There are marks also of previous excitement; and the substance of the brain, especially the cortical part, is flaccid and moist. In apoplexy and palsy, the diseased appearances are sanguineous and serous effusion into the ventricles and substance of the brain.

VIII.

On the Morbid Sensibility of the Eye, commonly called Weakness of Sight. By JOHN STEVENSON, Member of the Royal College of Surgeons. London, 1810.

We have often thought, that the title-page and dedication of a book might be justly compared to a man's first introduction amongst a society of strangers. The size and beauty of the type coincide with his dress and gestures; whilst the matter which the pages contain, resemble the more prominent features of his mind, and the intelligence of his countenance. What opinion, then, are we to form of a work, whose title-page contains merely a symptom of disease, met with in almost every affection of an organ; or what notion can we form of the upright, manly and independent conduct of a medical man who stoops to place a professional work at the foot of a *Lady of Quality!* We are far from wishing to detract from the character of the "Lady Viscountess Perceval," the chosen one to whom the author has dedicated his work. Nor do we presume to doubt that "compassion for the afflicted is not the least amiable or prominent feature in her truly estimable character." Yet we cannot refrain from remarking, that, in our opinion, her name is brought forward before the public in a manner, and in a place, highly degrading to her rank and sex; and had even Lady Perceval been one of the most celebrated *blue-stocking ladies* of the day, we do not think that she should have allowed her name to appear in the dedication of such a book.

Our author, in his introduction, points out how indispensable, how ornamental the organ of vision is; and he is afterwards led to draw some very important conclusions on the diseases of the organ, which he indeed expresses in a sentimental and affecting manner! It has afforded him exquisite delight, to find that the diseases of the eye, "which have been in a great measure monopolized by *presuming* and *ignorant* empirics, utterly ignorant of the principles and practice of medical science, is now considered not less important than any other branch of surgery!" (p. 2.)

Thus Mr Stevenson renounces, at the outset, all pretensions to empiricism and quackery, and adds, "having for some time past, altogether relinquished *general* practice, (*in the exercise of* which I have been for many years extensively engaged), for the express purpose of devoting my attention exclusively to the management of the eye and ear." (p. 3.) We will not attempt to calculate the degree of this pleasure by any measure, either moral or physical; but we most cordially join him in expressing our gratification, could we believe that he is the man who has released the duties of the oculist from the hands of the ignorant and presuming empiric. If Mr Stevenson had been acquainted with the history of medicine, and of those men who have contributed most to its improvement, he surely could not have ventured to intrude such sentiments before the public. We have always conceived, and our opinion is not a singular one, that the practice of the medical art, and the study of the science of medicine, were one and the same, and that diseases of any particular organ could not be treated with ability and skill, but by those who had acquired an extensive knowledge of the diseases of the whole body. Upon these general principles, we have always condemned those who have pretended that any knowledge could be obtained in the diseases and treatment of a particular organ, by practising on that organ alone, which the general practitioner might not acquire. On the Continent, the two most celebrated surgeons of the present day, Richter and Scarpa, have contributed greatly to our stock of knowledge on the diseases of the eyes; and in our own country, the work of Mr Gibson may be mentioned, amongst many others, as a strong illustration of our opinion. The same may be said of the ear, from the ingenious observations of Mr Cooper. But to proceed to the work before us.—We have already found fault with its title-page, as it merely expresses a symptom which occurs in many diseases of the eye. In the greater proportion of the diseases of this organ, does not the retina acquire a morbid degree of sensibility? And in nearly as great a proportion is there not a weakness of sight? The perusal of the work is a proof of our remarks, as it contains a history of some diseases (chiefly inflammation of the parts contained in the posterior chamber) where this morbid sensibility of the eye is merely a symptom. The whole merit which we conceive the author to claim to himself in this work, and the only apology which we can find for his writing a book, is to show, that these cases, commonly called weakness of sight, have been generally and very unsuccessfully treated by tonic medicines; and that our author has successfully employed an opposite mode of treatment, by bleeding, purgatives, and the antiphlogistic regimen.

IX.

Communications relative to the Datura Stramonium, or Thorn-apple: as a Cure or Relief of Asthma: addressed to the Editor of the Monthly Magazine; several of them never before published. Lond. 1811. pp. 90.

It is a trite observation, that on the introduction of new, or revival of neglected remedies, two opposite faults are frequently committed. By some they are extolled for powers which they do not possess, while others deny them all virtues; and it is seldom, until after repeated fluctuations, that their real value is at last ascertained and generally admitted.

The subject of this treatise furnishes a striking example of the truth of these remarks. Stramonium was for a short time extolled as an almost infallible remedy in the cure of mania and melancholia, and then fell into total neglect. Once more it has become fashionable, for the cure of a totally different disease, and its newly ascribed powers are still a matter of keen controversy.

The first public notice of these was in a letter to the Editor of the Monthly Magazine, signed *Verax*, but now acknowledged by Mr Sills, a respectable merchant in London, who had derived great benefit from its use. The history, however, of its introduction, is very concisely detailed in the following letter, from Dr Sims of Guildford Street.

"Some time in the year 1802, I received from General Gent a remedy that he had not long before brought from Madras, which, the General informed me, was used there as a specific for relieving the paroxysm of asthma, and that it was prepared from the roots of the wild purple-flowered thorn-apple (Datura *ferox*). The roots had been cut into slips as soon as gathered, dried in the shade, and then beat into fibres resembling coarse hemp. The mode of using it was by smoking it in a pipe at the time of the paroxysm, either by itself or mixed with tobacco, according as the patients were previously addicted to smoking or not. General Gent procured this remedy from Dr Anderson, physician-general at Madras, who both recommended it, and, I believe, used it himself.

"I happened at this time to be attending the daughter of an eminent physician, labouring under phthisis pulmonalis, combined with asthma, as appeared to me from the frequent paroxysms of difficulty of breathing, not usual in pure phthisis, at least in so early a stage of the disorder. With a view of alleviating these distressing paroxysms, I recommended a trial of this remedy, which to me was at that time perfectly new. The relief obtained was far beyond expectation; and, although gradually sinking under an incurable disease, this amiable lady continued to experience great satisfaction in its use, almost to the fatal termination.

"Soon after this, meeting with Mr Toulmin, surgeon of Hackney, at a time when he was much harassed by frequent paroxysms of asthma, under which he had been suffering for several years, I recommended the same remedy to him. He received so much benefit from its use, that I gladly transferred all of the remedy that I had left to him. But the quantity not being sufficient to last long, he was obliged to have recourse to our common thorn-apple (Datura Stramonium), of which I had advised him to try the stalks, as the roots of this species are small and fibrous. Mr Toulmin experienced nearly the same relief from this as from the East India plant: he likewise tried the leaves, but could hardly distinguish these from tobacco, either in taste or effects. From Mr Toulmin, the knowledge of this remedy was communicated, among others, to your correspondent (Mr Sills).

"I have two purposes to answer by the above communication. In the first place, it will serve to point out the history of the introduction of a remedy which promises to become an important addition to the Materia Medica; not that I can claim any merit from the share that I have accidentally had in it; but the principal intention I have had in view, was to show that the original remedy, as used in the East Indies, is not exactly the same as what is used here. It is indeed highly probable that both species have nearly similar virtues; but the one may perhaps be more efficacious than the other. It is to be hoped that prepared roots will be imported from Madras, in order that such patients as may not have experienced the promised relief from smoking the stalks of Datura Stramonium, may have an opportunity of trying whether the roots of Datura Ferox may be efficacious.

"More care ought to be taken in the preparation of the stramonium than is usually done. The stalks ought to be cut into slender slips while recent, and dried quickly. In our climate the general direction of drying in the shade is injurious to most herbs; the quicker they are dried, the more they contain of the taste and colour, and consequently of the virtues of the fresh plants. I observe, that, of late, the whole plant is sold in the physic herb-shops, as a remedy for the asthma. Now it ought to be generally known that the leaves, and more especially the unripe capsule and seeds of the thorn-apple, are a very powerful, nay even a deleterious narcotic, if taken internally, and probably cannot, in all cases, be even smoked with impunity. Yet the leaves, according to the experience of Mr Toulmin himself, are not possessed of the same powers, in allaying the asthmatic paroxysms, as the comparatively mild and innocent stalks and roots."

We shall now make a few quotations from the cases contained in these letters. Mr Sills first describes the symptoms of his asthma, and the effect of the stramonium upon him, and his manner of using it.

"The asthmatic paroxysm usually came on about two o'clock in the morning, when I was suddenly surprised from sleep with violent convulsive heavings of the chest; and I was scarcely allowed time to place myself upright in a chair, where I sat resting myself upon my elbows, and with my feet upon the ground (for I could not bear them in an horizontal posture), before I underwent a sense, as it were, of immediate suffocation. The fits generally continued, with short intermissions, from thirty-six hours to three days and nights successively; during which time I have often, in the seeming agonies of death, given myself over, and even wished for that termination of my miseries.

"An amiable friend and most respectable surgeon at Hackney (Mr Toulmin), first persuaded me to smoke the divine Stramonium, to which I owe altogether my present freedom from pain and renewed capacity of enjoyment.

"It is the root only, and lower part of the stem of this plant, which seem to possess its anti-asthmatic virtue: these should be cut into small pieces, and put into a common tobacco-pipe, and the smoke must be swallowed, together with the saliva produced by the smoke; after which the sufferer will, in a few minutes, be relieved from all the convulsive heavings, and probably drop into a comfortable sleep; from which he will awake refreshed, and, in general, perfectly recovered: at least, this is the invariable effect produced upon myself. He should, by all means, avoid drinking with the pipe, a too ordinary accompaniment of smoking.

"I once took some brandy and water with the pipe, but it proved a very improper combination; a dish of coffee, however, I often take after it, and find it highly refreshing. I should mention that strong coffee has frequently been recommended to me, but never produced any beneficial effect as a cure for asthma.

"This plant is delightfully fragrant: and although it has been regarded hitherto as of a poisonous nature when taken inwardly, yet I have smoked a dozen pipes at a time, without experiencing from them any other inconvenience, than a slight excoriation, or soreness of the tongue."

Dr Reid says, that in several other instances of similar disease, the success has been equally remarkable and complete. Mr Willis of Bristol states its success in his own case; likewise Mr Young of Aberdeen. Mr Woodrow of Norwich states, that he has smoked the stramonium since last September, and almost invariably experienced great relief in respiration; but he did not find that it diminished the daily accumulations of phlegm. Mr Radborn of Alveston in Derbyshire, a sepuagintarian, was also greatly benefited by it; but it must be remarked that he used the stalks and seed-vessels. The last testimony in favour of the stramonium which we shall notice, is in the following letter from Mr Sills.

"You are at perfect liberty to make every use of my name respecting the stramonium you think proper, and may add, that I continue to derive increased good effects from the use of it. In truth, the asthma is destroyed! I drink beer, eat of every thing; and if my mind was as free from perplexity, as my body is from asthma, I should again enjoy my existence. I never experienced torpor or any ill effect whatever; and I would rather be without life than without stramonium."

This evidence, though far from decisive, is sufficient to entitle the stramonium to a fair and varied trial, under the superintendence of attentive practitioners. Of the activity of many parts of the stramonium, there are unfortunately too many proofs on record, and we fear that its indiscriminate use as a popular remedy may be attended with danger, especially as we well know that the leaves and seed-vessels, and even the poisonous seeds, are often used instead of the principal stalk, which is the part specially recommended, and is *said* to be comparatively mild and innocent. We should also think that the direction given to swallow the saliva excited by inhaling its smoke, ought to be followed with great caution. From the analogy of tobacco, we should fear that it would be extremely apt to derange the stomach; for we know that experienced smokers carefully avoid swallowing the saliva impregnated with the condensed fumes of the smoke. Besides, we consider the novelty and advantage of the practice of *smoking* stramonium, to consist in applying the remedy directly to the seat of the disease. The coloured engraving, said to represent the *Datura Stramonium* in flower, is execrable, and gives no idea of the plant. It is easily cultivated, like any other hardy annual.

X.

An Experimental Examination of the last Edition of the Pharmacopœia Londinensis; with Remarks on Dr Powell's Translation and Annotations. By RICHARD PHILLIPS. London, 1811. pp. 148.

THIS publication owes its origin to a critical examination of the London Pharmacopœia, and its official commentary by Dr Powell, which were the subjects of an excellent article in the London Medical Review. Although it was evident that the remarks contained in the critique to which we allude were those of an experienced and enlightened chemist; yet, while perusing it, we had often occasion to regret that the limits within which it was necessarily confined, obliged its author to confine himself to general results upon some occasions; and upon others, to omit the insertion of particulars on which he had taken pains to inform himself. In short, the Review made us long for a sight of the experimental note-book of its author; and most unexpectedly our wishes are fulfilled by the publication of the work now before us.

It would be supererogation to attempt a regular analysis of its contents; for, as we have little to object, we could not hope to condense the information it contains, more ably than Mr Phillips himself has already done. We shall merely extract a few passages as examples of the style of the work, and with the view of exciting the students of pharmacy to peruse the whole.

He commences with a few observations on the weights and measures, and nomenclature of the College. Upon these subjects, we have already stated our own opinion. Upon the general principles, we think somewhat differently from Mr P.; but he has certainly proved, that the College has not been able to apply them to practice.

The rest of the work is occupied with criticisms on many of the preparations of the London Pharmacopœia, arranged in the alphabetical order of their titles. Their general tendency is to show, that there is a want of economy in the process, as directed in the Pharmacopœia, or that it is in some respect unchemical, or does not furnish a product having the properties required by the College, or is altogether impracticable; that in some instances, the tests whereby the success of the operation is to be ascertained, are injudicious; that in others the product itself is useless; and lastly, that some of the changes are attended with dangerous consequences.

To obviate these dangers in some degree, we shall extract Mr Phillips's remarks in regard to them. Mr Phillips shows, that in the new Pharmacopœia the strength of the diluted sulphuric acid is increased nearly in the proportion of three to two, while that of diluted nitric acid is reduced to one-fourth of what it was.

> "In common as I apprehend with most persons concerned in dispensing medicines, I have experienced some difficulty in determining the safest method to adopt with regard to the diluted acids; for having shown that Dr Powell, one of the committee employed in framing the new Pharmacopœia, was unacquainted with the extent of the alterations introduced, it is evident that practitioners, relying upon the statements contained in the translation, may be seriously disappointed by these articles. For the present I have judged it to be safest to keep acids diluted in both proportions, and to employ them according to the terms by which they are prescribed; presuming, as is obvious, that every practitioner who uses the new terms, is aware in what degree the new preparation differs from the former: a conclusion which may not in every instance be true.
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> "There is one preparation in which this precaution is unavailing; the infusum rosæ, without having suffered any change of name, has been very considerably altered in strength."

The liquor ammoniæ of the present pharmacopœia is about five times stronger than the aqua ammoniæ of the former, yet the College seems evidently to consider them as the same.

> "Liquor ammoniæ is now directed to be used in many of those preparations in which the subcarbonate was formerly employed; and it is particularly requisite that the attention of practitioners should be directed to this circumstance. I have already noticed the great difference which exists between the strength of the former Aqua ammoniæ puræ, and the present Liquor ammoniæ: the power of the Linimentum ammoniæ fortius, and of the Linimentum camphoræ compositum, has also been greatly increased. It is, however, much more important to point out the extravagant increase of power added to those medicines which are internally employed, viz.
>
> Spiritus ammoniæ
> ———————— aromaticus
> ———————— fœtidus
> ———————— succinatus.
> Tinctura valerianæ ammoniata
> ——— guaiaci ammoniata.
>
> "With the exception of the preparation last mentioned, the quantities assigned by Dr Powell for the doses of these medicines are equal to those of the former weaker preparations given by Dr Ex-

them. I cannot quit this part of the subject without remarking, that of all the improvements attempted by the College, their failure in this is calculated to produce the most extensive mischief; and I will venture to assert, that scarcely one of the preparations above mentioned, could be exhibited in the doses stated by Dr Powell, without danger to the patient, and disgrace to the practitioner."

The change in the strength of the solution of emetic tartar ought also to be generally known.

"In the late Pharmacopœia the vinum antimonii tartarizati was directed to be prepared by dissolving two scruples of tartarized antimony in a mixture of ten fluid ounces of water and wine. The College have now reduced the tartarized antimony to one scruple, and this important alteration is not only unnoticed by Dr Powell, but he even states that 'this preparation resembles the former vinum antimonii tartarizati.' There is not the slightest difficulty in making the former preparation: the change introduced must therefore be considered as originating in mere frivolity; and it may occasion serious disappointment to those practitioners who are not aware that it is requisite, for the safety of their patients, to examine how many alterations have been made, without even the hope of improvement."

The most important duty required from the Royal College of Physicians of London, in return for the high and valuable privileges conferred upon them, is the publication of a scientific and judicious Pharmacopœia, to guide the pharmacy, and indicate the instruments of the practice of their less dignified brethren. That they have completely failed in the discharge of this debt to the community, is confirmed in every page of the work before us; and perhaps it may not be altogether useless to state, what appear to us to be the causes of this failure. At once two naturally occur as the most likely, ignorance and inattention. Of the latter fault, the fellows may have been guilty in various degrees. It may have consisted in carelessness in the selection of the committee to whom the revisal was entrusted, or in having too great a degree of confidence in them. But of the heavy charge of ignorance of pharmaceutic chemistry, we are afraid that they must all severally and aggregately stand convicted. Against the truth of this charge, and the effects it must have upon their reputation and character, charters, by-laws, and even decisions in courts of justice, will not avail them. These will indeed preserve to them the exclusive enjoyment of many valuable privileges; but the pretence of superior learning, upon which these were granted, and are still continued, has become an object of ridicule to every apothecary's boy. Nor can it be urged, that it is learning of a higher description that is required of them; that it would degrade the dignity of a fellow of the Royal College to pore over a furnace or a retort. They are not only supposed to be the only members of the profession who can read the language of Hippocrates, but also to be alone capable of regulating and controlling the practice of pharmacy. This, by far the most important distinction of the two, if at least we measure their importance by their utility, they have utterly disregarded; and if a corporation could be as easily disfranchised, as his Majesty's ministers may be removed, for incompetency, the corporation of Warwick Lane might be justly considered *felo de se*. It is, in fact, the narrowness of the corporation, which is a principal cause of its present disgrace. It deprives them of the knowledge and assistance of a very large proportion of their brethren; and it has a bad effect, both upon the favoured few and the oppressed many, by taking away from the latter many motives for honourable exertion, and leading the former to be more zealous in maintaining their false dignity, than in promoting their science. We will assert, without the fear of contradiction, that if the licentiates of London had been constituent members of the College, the true dignity of the profession would not have suffered by the publication of the Pharmacopœia.

We shall pass entirely over the numerous additional errors in the translation, because, from Dr Powell being evidently the member of the committee to whom the revisal of the pharmaceutical department was chiefly entrusted, we consider him and the College as completely identified.

But the Society of Apothecaries claims a little more attention, not for appointing "a committee for the purpose of co-operating with the College, in the use of their extensive laboratory, and in bringing to the test of that sort of experiment upon a large scale, which could alone render the suggestions of science practically useful, the several processes which were communicated by the College," but for grossly misleading and deceiving the College, and for openly contravening its injunctions, which the said Society is specially bound to obey. It is evident, that the worthy company of Apothecaries did not inform the College how many of the suggestions of science they found to be improper, extravagant, or absolutely impracticable; and it is probable, that they had never communicated to the College the processes they themselves employed, but rather carefully concealed them as precious nostrums. But what is worst of all, Mr Phillips has proved, that Apothecaries' Hall, from which every practitioner has a right to expect genuine medicines, prepared strictly according to the directions of the College, is in the habit of furnishing spurious and inferior articles. To substantiate this charge, we may notice the results of the following articles as prepared by Mr Phillips, according to the direction of the College, and as procured from Apothecaries' Hall.

		Mr Phillips.	Apoth. Hall.
Acidum aceticum	-	Sp. Gr. 1.0023	Sp. Gr. 1.007
——— muriaticum		Sp. Gr. 1.142	Sp. Gr. 1.158
——— nitricum	-	Sp. Gr. 1.51	Sp. Gr. 1.424
Liquor ammoniæ	-	Sp. Gr. 0.9040	Sp. Gr. 0.9885
Potassæ supersulphas. *			
Liquor ferri alcalini. †			
Liquor plumbi acetatis ‡		Sp. Gr. 1.22	Sp. Gr. 1.31

Besides the strictures on the College, Dr Powell, and Apothecaries' Hall, Mr Phillips's publication contains much useful in-

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* Instead of this acid salt, that procured under this name from Apothecaries' Hall, contained not a grain of it, but was a mixed salt. " One hundred grains of this mixed salt consist of nearly

58 sulphate of potash, and
42 nitrate of potash.

" When, therefore, 2 drachms of this compound are exhibited, instead of the like quantity of supersulphate of potash, 2½ scruples of nitre are given; exceeding by one scruple, the largest dose mentioned by Dr Powell."

† " Being desirous of examining this medicine, prepared with the advantages enjoyed by those operators, from ' most important intercourse ' with whom this process probably emanated, I applied for it at Apothecaries' Hall. The solution which I obtained, possessed properties diametrically opposite to those belonging to an alcaline solution of iron, as will appear by the following statement of the effects produced by reagents upon each.

	Alcaline Solution of Iron.	Solution from Apothecaries' Hall.
Turmeric paper	Reddened	No effect.
Litmus paper	No effect	Reddened.
Nitric acid	Precipitation	No effect.
Subcarbonate of potash . .	No effect	Precipitation.
Water	Precipitation	No effect.

" On comparing these statements, it will be evident that the solution procured at Apothecaries' Hall is an oxinitrate of iron, containing much nitric acid in excess; probably also some nitre."

‡ " Dr Powell observes, that ' this is a dense solution of a deep brown colour.' Now I have frequently prepared this solution, and have generally observed that it is of a straw colour, with a slight admixture of green, and of sp. gr. 1.22. I was consequently struck with the incorrectness of Dr Powell's description; and as it was evident that he had adopted it upon the authority of others, and not in consequence of his own experiment and observation, I procured this solution from the avowed source of collegiate pharmaceutical knowledge. Upon examining the solution obtained at Apothecaries' Hall, I did indeed find that it was ' a dense solution,' its sp. gr. being 1.31 instead of 1.22; and its colour was truly ' deep brown.' The difference of these preparations being considerable, I procured some distilled vinegar and litharge from Apothecaries' Hall, in order to examine whether any peculiarity which they might possess would explain the dissimilarity. But the difficulty

formation on many chemical and pharmaceutical subjects; and we may merely notice, because we would not expect to find it there, that it contains the best description yet published of the crystallizations of various saline bodies, furnished by the Count de Bournon.

As connected with the ignorance of the principles of pharmacy evinced by the Royal College, and their total practical inexperience, most of their blunders may be traced to two opposite causes: the borrowing processes implicitly on the faith of others,—and the altering the processes adopted from others, merely to hide their being borrowed. The first is a venial fault, in comparison with the meanness, not to give it a worse appellation, of the second. But we trust that this Pharmacopœia, bad as it is in the present state of science, will ultimately be productive of good:—that it will determine not only the College of London, but all other Colleges, to ascertain, by experiments carefully made by themselves, the practicability and preference of the processes they enjoin, before they proceed to denounce the high displeasure of his Majesty, and all the pains of law upon those who deviate from them.

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was rather increased than diminished; for the preparation now obtained possessed even rather less colour than that which I had before made; and its sp. gr. very nearly resembled it, being 1.25 instead of 1.22.

"Suspecting that the dark colour of the solution above described might be derived from the use of vinegar containing colouring matter, I boiled some litharge in undistilled vinegar; and the solution obtained, was certainly of a deeper yellow colour than that made with distilled vinegar, but still not at all verging to brown, I now prepared this solution with the acid which remained in the vessel after the distillation of vinegar, and which consequently contained a very large quantity of colouring matter: By employing this, I succeeded in obtaining a solution, exactly resembling that from Apothecaries' Hall in colour, but by no means equal to it in sp. gr.; instead of being 1.31 it was only 1.21.

"Abstractedly considered, the colour of this solution is not of the slightest consequence; but as every circumstance which tends to render it difficult to indentify a preparation is of importance, the consideration even of colour should not be neglected. In addition to this, when vinegar which contains much extract is employed, it acts slowly upon the oxide of lead dissolved, and by continual precipitation the solution is not only rendered weaker, but of uncertain power. I have bestowed more minute attention upon this preparation than its importance might seem to demand: but I have done so because those errors which are sanctioned by authority are doubly productive of mischief, and their detection should be followed by exposure."

PART III.

MEDICAL INTELLIGENCE.

Report of Diseases treated at the Public Dispensary, *(near Carey-Street), London, from Feb.* 29, *to May* 31, 1812.

Acute Diseases.

	No. of Cases.		No. of Cases.
Febris	17	Scarlatina anginosa	2
Febres intermittentes	4	Erysipelas	1
Febris infantum	6	Herpes	2
Cynanche	8	Hepatitis	2
Pleuritis	1	Dysenteria	14
Peripneumonia	13	Arthritis rheumatica	9
Pertussis	10	Rheumatismus	8
Catarrhus	116	Apoplexia	1
Variola conferta	1	Epistaxis	1
Varicella	2	Ophthalmia	1
Rubeola	6		

Chronic Diseases.

	No. of Cases.		No. of Cases.
Dysecœa	1	Asthma et Dyspnœa	6
Cephalæa	12	Hæmoptysis	15
Vertigo	3	Phthisis	24
Dyspepsia	23	Nephralgia	7
Gastrodynia	14	Hæmaturia	1
Pyrosis	4	Enuresis	1
Icterus	7	Hysteralgia	1
Morbi hepatis	5	Prolapsus uteri	1
Enterodynia	10	Menorrhagia	12
Diarrhœa	10	Leucorrhœa	9
Marasmus	11	Amenorrhœa	7
Tympanites	1	Gonorrhœa	3
Tænia	1	Ascites	1
Colica saturnina	1	Hydrothorax	1
Hæmorrhois	2	Anasarca	5
Catarrhus chronicus	38	Hydrops tot. corporis	8

CHRONIC DISEASES *continued.*

	No. of Cases.		No. of Cases.
Phlegmatia dolens	1	Cachexia syphiloidea	2
Rheumatismus chron.	25	Rachitis	1
Pleurodyne	1	Phthiriasis	1
Nodositas	1	Prurigo	2
Lumbago	10	Psoriasis	4
Insania	2	Lepra	1
Asthenia	20	Pityriasis	1
Tremor ab hydrargyro	2	Urticaria	2
Paralysis saturnina	3	Erythema	2
Lethargus	1	Intertrigo	1
Hemiplegia	3	Roseola	1
Epilepsia	3	Aphthæ	1
Hypochondriasis	2	Impetigo	2
Hysteria	6	Ecthyma	1
Palpitatio organica post rheum.	1	Scabies	11
Hectica	2	Porrigo	15
Tabes nutricum	2	Tubera	4
Scrofula	4	Verrucæ	1

Until near the middle of May, the temperature of the atmosphere was constantly chilly, and the wind with little variation from the east and north-east. During the month of March, the operation of the cold was rendered more active, as an occasional cause of disease, by almost daily rains; while, in April, the penetrating chill of the easterly wind was unremitting, although the greater part of the month was dry. In the second week in May, when the wind changed, vegetation was but little advanced; but the rapid burst of foliage and blossom which ensued, has been supported by a succession of rains, together with much sun-shine and warmth; so that, although the productions of spring are late, they promise to be abundant. On the 27th inst. the thermometer was above 70°.

The unremitting cold of March and April, and the humidity of the former, will serve to account for the unusual number of acute catarrhal complaints which have claimed the assistance of the charity. The cases of hooping-cough were also aggravated by the same causes, as well as the cases of incipient phthisis and hæmoptysis. If we take away, indeed, the diseases which were produced or augmented by the influence of cold, the list will present only the usual affections which the ordinary occupations and habits of life induce among the lower classes of the people. There has been no epidemic or contagious disease in any district within the cognizance of the Dispensary, until the middle of the present month, when the measles have appeared, and seem likely to spread freely in the neighbourhood of Fetter-Lane; and the scarlet-fever has shown itself in one or two families, and the chicken-pox in another. The latter has occurred in several families in the upper class of society, in all of which it was traced to schools, where it had affected several others.

Little has occurred that is worthy of particular remark in the progress of the diseases above enumerated, except a singular extension of the inflammation of the throat, in a case of scarlatina, to the internal membrane of the trachea, producing a true *croup*. It may possibly be doubted, whether the croup did not actually supervene, incidentally, at the time when the scarlatina was present: but, as it occurred just when the angina was at its acme, and the eruption disappearing, it seems more probable that it was a mere extension of the original inflammation. The patient, however, coughed up a cylindrical tube of coagulated lymph, of nearly four inches in length; but from this she experienced only temporary relief, and died two days afterwards.

Two marked examples of the effects of the poison of mercury on the constitution, occurred about the same time; the one, however, considerably more severe than the other. Both these patients were employed in silvering mirrors; and, in applying the amalgam to the concave surface of convex mirrors, had been under the necessity of retaining the hand immersed in mercury for a long time daily. After being engaged a few weeks in this employment, they were altogether disabled from work by the paralytic tremor and debility which ensued. The one, who was most severely affected, had quitted his work about three weeks before I saw him, at which time he had suffered a moderate degree of salivation, which had now disappeared. The principal affection under which he now laboured, was not, as has been sometimes described in these cases, a constant tremor of the limb, and see-saw of the head, such as occur in old paralytic persons, but a sort of rapid convulsive agitation of the limbs, whenever the act of volition was exerted upon the muscles; which moved the extremities quickly in all directions, except that which the will prompted. Thus, he could sit on his chair, still and nearly unmoved; but the moment he got up, and attempted to walk, his legs began to dance, as it were, in spite of himself, and performed very rapid and irregular motions, with so much violence, as to compel him to drop on his chair again, or to throw him down. Somewhat similar motions were performed by his arms, if he attempted to use them; so that he was unable to carry any thing to his mouth; and the smallest quantity of liquid was immediately dashed out of any vessel from which he made an attempt to drink. He was under the necessity, therefore, of being fed like a child. His articulation was also rendered somewhat indistinct. These spasmodic tremors, however, were greatly increased by any circumstance that agitated his mind, or occasioned any anxiety. His bowels were constipated, and he complained of much pain in his limbs and loins, which, together with the muscular agitations, rendered his sleep very imperfect; he frequently awoke, starting and frightened; and was troubled with incessant unpleasant dreams. The appetite was good, and the pulse apparently natural, although it was at first difficult to ascertain its beats, in consequence of the tremor of the tendons, which came on when his attention was directed to his arm, for the purpose of feeling the artery. He complained much of a general sense of great debility, and of being startled and flurried by slight causes.

Many instances of this state of body, induced by an impregnation of the system with mercury, in various artisans, but especially in water-gilders, as they are called, and in those who are occupied in the mines, [*] which produce mercury, have been recorded; and they are familiarly known to practitioners in large towns: But it does not appear, that the multiplied experience of medical men has yet led to the discovery of any effectual means of expediting the expulsion of the poison from the body, much less of an antidote to its operation. It has been suggested that sulphur diminishes the activity of mercury; and some practitioners have thought that substance actually remedial in cases of this sort, when followed by tonics. [†] De Haen, who has related a number of cases of the disease, ascribes great efficacy to electricity, even where it had advanced to a degree of severity much beyond that of the instances here alluded to. [‡] But it seems very questionable, from the great variety in the length of time in which these, and other remedies are reported to have effected the cures, whether time alone was not the physician. Mr Pearson has frequently stated to me his conviction (and his experience has been most ample), that a free exposure to the open air, during a dry state of the atmosphere, whether hot or cold, is, on the whole, the most effectual mode of depurating the habit from a mercurial impregnation. In the more severe case, just described, the sulphur was given freely, combined with salts, afterwards with bark; and subsequently the bark, mineral acids, and chalybeates in two or three forms, were prescribed. In the milder case, chalybeates only were given; but no very speedy relief or alteration was obtained. The latter thought himself better, as soon as he began to take the steel; but the former very gradually improved, and at the end of two months remains affected with a slight degree of the disease, which becomes considerable whenever any thing occurs to produce anxiety. He found himself most sensibly relieved, in respect to his general feelings, by the sulphur and salts, which acted as laxatives.

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[*] An account of the effect of the mercury on the labourers in the mines of Friuli, in the Venetian states, was given in the Philos. Trans. for April 1665. It is there said, that "all of them in time (some sooner some later) become *paralytic*, and die *hectic*." But as a proof that it was the spasmodic agitation of the limbs, above described. and not *paralysis*, like that from the poison of lead, it may be mentioned, that the writer saw a man "so paralytic, that he could not with both hands carry a glass, half full of wine, to his mouth, without spilling it, though he loved it too well to throw it away." p. 24.

[†] Dr Lettsom says "I have generally found the use of sulphur sufficient to remove it, with the addition of bark to strengthen the system." Med. Memoirs of the Gen. Dispensary, p. 327.

[‡] See his Ratio Medendi, Part III. where he describes a patient as affected "horrendo omnium artuum tremore," which increased to such a degree, "ut nihil laboris ultra perficere, ut nec comedere bibereve solus, nec loquens amplius intelligi potuerit. Nutriendus, vestiendus, et infantis instar, alvum urinamque positurus, ad juvandus erat."

Bedford-Row,
May 31*st*, 1812. T. B.

Observations on Hydrophobia.

Hydrophobia is a disease, which, although not very prevalent in this island, is still sufficiently so to demand the investigation of the medical philosopher. Every year brings with it the account of some few who have died from this afflicting malady. An individual case may only occur to a practitioner in the whole course of his practice; the case is not inserted in any depôt for similar histories; and the opinion of the cause, with the treatment of the disease, both die with the practitioner who made them. Our opinions with regard to the origin of hydrophobia are certainly very vague; for we have one party ascribing the complaint to a specific virus introduced into the system by the bite of a rabid animal; another party, which enjoys an equal number of partizans, denying the influence of a specific virus, and acknowledging the complaint either to have arisen spontaneously, or to have been induced by the power of fear, operating in those habits which are endued with an irritability of temper, and a certain morbidity of fibre, which are supposed to favour the occurrence of the complaint.

It behoves, therefore, every medical man, to investigate the disease as it affects the animal itself, and to publish to the world a full and accurate detail of those cases of hydrophobia which may have occurred to him; and when this is considered a moral obligation, we may hope to accumulate a mass of evidence, from which legitimate conclusions may be deduced. In this uncertainty, it might be of use to compare the different conjectures hitherto advanced, which favour one or the other of these opinions, and which would seem to be more required at this present time; as a late publication of Dr Bosquillon's may make many proselytes to his system. I merely mean to observe in this paper, that in support of the first opinion, the many cases upon record must induce us to believe, that hydrophobia has ensued from the bite of a rabid animal; and where not only no suspicion was entertained of the rabies of the animal, but when the mind was confident that no untoward symptoms could ensue, and where, on account of tender age, no terror or *timor hydrophobiæ* could act as exciting causes. I can refer the reader for confirmation of the fact, to the Manchester Memoirs, and to Dr Ferriar's Medical Facts and Observations. I may mention, in further support, the case of a lady who was bitten by a rabid dog at Edinburgh, in the year 1806, and in which case, no terror of future hydrophobia could prove an exciting cause: The symptoms of rabies did not supervene till the termination of eight months from the date of the bite; and during the whole of this period, the patient did not entertain the least idea of that disease which was to terminate her life. The first symptoms (which are not always attending ones) were inflammation and eruption on the part bitten, to which succeeded difficulty of swallowing, and the other symptoms characteristic of the disease. The case of Richard Brown, a boy of 7½ years old, recorded in the Edinburgh Medical and Surgical Journal for January 1810, likewise militates strongly against that opinion which denies a specific virus as being a cause of the complaint; and Dr Clarke justly remarks, that " Brown could not have acquired any information on hydrophobia; his age precludes the supposition of reading on the subject; and his relatives were so little prepared, that they did not suspect the nature of the disease." Experiments are wanting to prove in what manner the disease of rabies is communicated from the dog; whether the cause is in a vitiated state of the saliva, or derived from any peculiar poison which may be secreted, as we observe in venomous serpents; but proofs are not wanting to show, that the disease *has* arisen from the influence of the bite, and that the opinion of Dr Bosquillon is erroneous. Dr B. acknowledges only three causes for the complaint, viz. 1. Inflammation of an internal viscus; 2. Lesion of a nerve or tendon; and 3. Fear, which latter is the most common cause of all. Dr B. says, (Vide L'Esprit des Journaux, Tom. II. Fevrier 1809), " Elle (La Terreur) a particulierement lieu à la suite de la morsure des chiens pretendus, ou réellement enragés. Elle ne peut être qu'une suite de nos préjugés; car tout remede capable de rassurer l'imagination frappée en arrête avec certitude les progrès. Peut on avoir *des preuves plus certaines qu'elle n'est pas due à un virus particulier.*"

'The Doctor wishes to prove, from premises that will not bear him out in his conclusion, that hydrophobia cannot ensue from the bite of a dog. His cases only show that rabies, or a disease very similar, may be induced by other causes. In those cases which he mentions, the dogs were not proved not to have been mad; the non-existence of a specific virus could only be suspected, as their diseases were not attended to. In the paragraph, however, above stated, the exemption from rabies must have been certain; as it is not to be supposed that any impression made upon the mind, could stop the progress of genuine rabies produced by specific virus. The case of the child, recorded in the same Journal, only proved the instance of a child dying through fear, in which some anomalous symptoms were conspicuous. Nevertheless, we must allow that hydrophobia, or a disease very similar to it, has in very many instances arisen spontaneously, or been induced by powerful impressions upon the mind in nervous habits, as we cannot suppose that so active a virus can exist for many years in the system, without producing its effects. In this opinion I heartily agree with Dr Bosquillon, but differ from him, unless he disallows of the possibility of the disease being communicated from the canine to the human species.

Letter from Dr CHARLES STUART, *F. R. S. E. Vice-President of the Royal College of Physicians, Edinburgh, to* JAMES DONALDSON, *Esq. Publisher of the Edinburgh Advertiser, on the Evidence afforded in favour of the Antivariolous power of Vaccination, by the occurrence of Epidemic Small-pox at North Queensferry, in December* 1811.

DEAR SIR,—I have been frequently obliged to you for communications on the subject of vaccination, and am now glad to pay you back *in kind.* If you judge it proper to insert my letter in the Advertiser, I will thank you to do so, with my name, both to authenticate the information it contains, and to solicit the attention of those with whom I may be acquainted, if any such remain sceptical respecting the immense blessings which it has pleased God to bestow on mankind, by the discovery of this effectual preventive of the most loathsome and fatal disease to which they are subject.

I heard, about a fortnight ago, that small-pox were epidemic, in a virulent form, at North-Queensferry, and requested information respecting it from Mr James Scott, superintendant of the passage there over the Frith, a constant resident, and one on whose accuracy and fidelity I knew I could rely. The replies he has been so obliging as to send me are well entitled to this character. The sum of the whole is as follows.

The small-pox appeared in that village on the 14th of December 1811; and on the 7th of March, the date of Mr Scott's last letter, forty-six youths and infants, from below one to fifteen years of age, have been ill of that disease, of whom seven persons have died, three of them in one family, aged four, nine, and fifteen years. The population of the place is exactly 390 souls. Of these 132 had been vaccinated some time ago, *not one of whom has been seized with the contagion of small-pox.* This is the more remarkable, as the whole inhabitants not only live pretty close together, but some of those vaccinated belong to and reside in twelve families where small-pox prevailed.

It must not, however, be concealed, that two children have passed through the small-pox who were inoculated for cow-pox formerly. The midwife of the village, who inoculated one of them some years ago, informs Mr Scott that she did not think the inoculation effectual at that time, and wished to perform it again; but to this neither the boy nor his parents would submit. The other child was inoculated at Kincardine, Perthshire, and his case is described as similar with this one.

There remain in this village only nine persons, chiefly aged, who have neither had small-pox nor cow-pox.

Those who read this will, it is hoped, be impressed with a deep conviction of the personal danger of every individual by their liableness to this disease, and of the uncertainty of its taking on a virulent form and ending fatally.

I trust also that parents, in particular, will reflect on the efficacy of the merciful discovery of vaccination, and not allow themselves to be misled, and their infants to fall sacrifices to vague reports, absurd prejudices, and interested theories.

While vaccination extends its salutary influence in England, and especially in Ireland, what a pity is it that there should be reason to fear it is less practised than once in Scotland! It used to be objected to inoculation for small-pox, that a parent had not a right to communicate a disease, possibly fatal, to his children, which they might, after all, escape. The principle is no doubt a sound one, but misapplied. No person has ground to think that he may escape the contagion of small-pox. Louis the XV. of France died of the disease between 60 and 70 years of age; and I have evidence of an old woman about 80, who had nursed many children in the disease, dying of it herself at this advanced age.

By inoculation for small-pox, the disease was conveyed in the most favourable and harmless form, as demonstrated by long, large, and uniform experience, and the person inoculated was completely delivered from all hazard of contagion, and generally from the most virulent and fatal form of the disease.

But by vaccination nothing is produced which ought to be called disease; nor has the slightest danger, as far as I ever heard, attended the punctures, the inflammation on the arm, or any of the effects of cow-pox.

Parents, therefore, who *do not vaccinate their children, through thoughtlessness, negligence, or prejudices, which attention and inquiry would remove,* ought to remember, that they are daily exposing them to the hazard of a horrid disease, in which very *usually* not one in eight persons recovers;—never at any time more than one in ten.—I am, Dear Sir, your, &c.

George's Square, 16th March, 1812. CHARLES STUART.

P. S.—Mr Scott informs me, that, in a former epidemic in 1793, twenty-two children died in this small village in *natural* small-pox; in 1797, seven children died from the same cause; and in 1799, of three children *only* in the disease, one died. May I add, that it is much to be regretted that the test proposed by Mr James Bryce, surgeon here, in his very valuable book on this subject, and trusted to by many physicians and surgeons, as affording infallible proof of constitutional cow-pox, is not *universally* attended to.

A new and certain method, discovered and proposed, whereby any mistake in the practice of Vaccination may be easily detected, and the use of the genuine Kine Pock rendered more universal.

Individuals or families residing in any part of the United States, who cannot otherwise procure the most satisfactory proof of their having obtained the genuine Kine Pock, are hereby informed, that if, after submitting themselves to be vaccinated, they will take care of the scabs or crusts which every operation will produce (whether the same may have been effectual, spurious or imperfect) and will send them to the subscriber *for examination;* they may obtain the same evidence of their safety, or continued liability to take the small-pox, as if they had been personally visited by him every day during the whole process of their vaccination.

To obtain this desirable proof of personal safety, however, some little care and attention is requisite on the part of the patient.—During the period of inflammation or soreness, the arm into which the infection may have been inserted, should be taken as much care of as possible. The pock, or sore, should not be altered or disturbed by applications of any kind; neither ſhould it be ſcratched, bruiſed, or injured, in any manner whatever; but the diſeaſe ſhould be ſuffered to come to its own natural termination :—*A scab or crust will be then formed in due time ; and it will be found, on a strict and proper examination, to be perfectly indicative of the disease which produced it, whether the same may have been the genuine Kine Pock, or any of those spurious affections, which have been so often mistaken for it.*—On the eighth day after the operation, or as ſoon as the ſcabs or cruſts become looſe, they ſhould be taken off and wrapped in a little fine lint or cotton ; they may be then folded up in a ſmall piece of clean white paper, on which muſt be written the name, age, and place of reſidence of the perſon or perſons from whom they were taken ; and also the time when they came off.

In all caſes ſubmitted as above, where the vaccination has been effectual, a certificate ſigned by the ſubſcriber will be given, declaring that the perſon who has been the ſubject of it will never thereafter be liable to take the ſmall-pox : and if any vaccination may be found to have been ſpurious, imperfect, or ineffectual, the neceſſary precautions to be taken will be particularly and promptly given in a letter of advice.

In making known to the public this new method of correcting the miſtakes which have been every where ſo frequent, and alſo ſo fatal in the practice of vaccination, the ſubſcriber deems it neceſſary to ſtate, that he has adventured to propoſe it only after the moſt mature inveſtigation of its merits. His experience during eleven years nearly paſt, will now, he believes, fully juſtify him in declaring, that *there is no possible deception or mistake in vaccination, let the operation be performed by whom, when, or where it may, which he will not be able to detect with the utmost certainty, by the examination proposed ; and he has no doubt but that every other practitioner, who is perfectly acquainted with the character of the genuine kine pock, will soon discover that he can also, with a little attention, judge correctly of the effect of any operation, by an accurate examination of the scabs or crusts, as herein suggested.* He ſolicits, however, the moſt ſtrict ſcrutiny of the utility of his plan, by a diſcerning public ; and, ſhould it fail to accompliſh the highly important objects propoſed by him, no one will be more free to acknowledge it, nor yet more deeply to lament it than himſelf.

For all communications on this ſubject, either to or from the ſubſcriber, the medium of the Poſt-office is recommended, as being the moſt convenient, expeditious, ſafeſt and beſt. The poſtage, however, muſt in all caſes be paid, otherwiſe no communication will be taken from the poſt-office.

Baltimore, 17th March, 1812. JAMES SMITH.

Established Fees and Regulations of the Vaccine Institution, in the city of Baltimore, under the direction of Dr James Smith.

[A list of these is subjoined, but we are obliged to omit them from want of room.]

The Council of the Harveian Society beg leave to intimate, That, with the view of encouraging experimental inquiry among the Students of Medicine, they have announced the following Prize-Questions for three years to come.

For 1812.—An Experimental Essay on the best method of preparing a Soporific Medicine from the Lactuca Sativa.

For 1813.—An Experimental Essay on the effects of the Succus Spissatus Lactucæ Sativæ on the Human Body.

For 1814.—An Experimental Essay on the effects of the Digitalis Purpurea on the circulation of the blood, both in the human species and other animals, particularly in frogs.

Dissertations on these subjects must be transmitted to Dr Duncan *senior*, secretary to the Society, on or before the 1st of January following the year for which they are announced.

Edinburgh, 13*th April*, 1812.

Sir,—An obligation will be conferred on the Royal Medical Society of Edinburgh, by the insertion of the following paragraph in your valuable publication.

All Members of the Royal Medical Society, are invited to write an *Experimental Essay* on the following subject.

"To determine, by experiment, what substances are exhaled by the skin; and the changes, if any, which they produce on the surrounding air."

The Dissertations are to be written in English, Latin, or French, and are to be delivered to the Secretary on or before the 1st of December 1813, (being the year succeeding that in which the subject is proposed.) The adjudication will take place in the last week of February following.

To each Dissertation shall be prefixed a motto, and this motto is to be written on the outside of a sealed packet, containing the name and address of the author. No Dissertation will be received with the author's name affixed; and all Dissertations, except the successful one, will be returned, if desired, with the sealed packet unopened. I am, &c. N. Bain, Sec.

Edinburgh, 29*th April*, 1812.

It is with extreme sorrow that we have to announce the death of Dr Willan at Madeira. In our next Number we hope to be able to give a biographical memoir respecting him.

*** Communications may be addressed to the Editors, to the care of Messrs Constable & Co. Edinburgh; Messrs Longman & Co. London; and Gilbert & Hodges, Dublin.

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PART I.

ORIGINAL COMMUNICATIONS.

I.

Letter to Dr ANDREW DUNCAN, *jun. Physician, Edinburgh, from Dr* COCHRANE, *Fellow of the Royal College of Physicians, Edinburgh, enclosing a Letter from Dr* HARNESS, *Commissioner for Sick and Wounded Seamen, and Communications from Mr* PARSON, *Dr* BURNETT, *and Dr* WILSON, *on the Ardent Fever, as observed at Guadaloupe, Gibraltar, and Plymouth.*

DEAR SIR,—I send you a valuable communication from Mr Parson, Surgeon R. N., now stationed in Guadaloupe, giving an account of his successful treatment of Yellow-fever.

I considered it to be of so much importance, that I transmitted it for the inspection of Dr Harness, who so ably conducts the department of Commissioner for Sick and Wounded Seamen, at the Transport Board, London.

The opinion which the Doctor has expressed on this subject is so exactly consonant with my own, that I cannot do him more justice than by giving you a copy of his letter, which, with the facts stated by Mr Parson, I consider may have great weight in inducing practitioners, both in the navy and army, as well as West India residents, to follow up this mode of treatment in a disease which has proved so fatal to many brave defenders of our country; and, I trust, when prejudices and false theories are laid aside, this practice will become universal, and the scourge be attacked and defeated by weapons equal to the combat. Dr Harness has farther done me the honour to send me two very interesting and well-written papers, officially transmitted to him; one on the fever which appeared at Gibraltar in 1810, which shows the great judgment of Dr Burnett in his successful practice, and confirms, in the strongest manner, Mr Parson's observations in a distant quarter. The other exhibits the judicious treatment of the sick by Dr Wilson, by which a number of valuable seamen were soon restored to their duties, and that chiefly by the free use of the lancet.

Copies of these papers accompany this; and I request you will do me the favour to insert them, as soon as you can, in your respectable Journal, so that they may acquire as extensive a circulation as their merits entitle them to.

I take the liberty of adding, that these gentlemen's observations on congestion in the brain, and abdominal viscera, being the cause of all the violent symptoms attending this fever, was accurately pointed out by my late ingenious young friend, Dr William Irvine, physician to the forces in Sicily, in an excellent treatise on the diseases of the army in that country, which was published by him about three years ago, and which I would earnestly recommend to every practitioner in warm climates. His constant success, in these cases, by detracting large quantities of blood from the temporal artery, proved the truth of his observation; and, I think, in the first stage of yellow-fever, where the symptoms are urgent, that, or bleeding in the jugular veins, would give more speedy relief, and perhaps with the loss of less blood to the patient, upon the whole, than drawing it off by the arm.

I regret to add, that this accomplished gentleman fell a sacrifice to his professional duties in the island of Malta, in May 1811.

21, *Maitland Street, June* 20, 1812.

Letter from Dr Harness, *Commissioner for Sick and Wounded Seaman, to Dr* Cochrane, *Fellow of the Royal College of Physicians, Edinburgh.*

Dear Sir,—I am extremely obliged to you for the honour you have done me, by transmitting to me Mr Parson's opinion and treatment of yellow-fever, which certainly do him much credit. The perusal has afforded me very considerable satisfaction and pleasure, as it goes to substantiate the correctness and wisdom of the practice, which has for some time been obtaining generally in the Royal Navy; and which, I am persuaded, by a long series of observation and extensive practice in southern climates, as well as from the various statements of its superior success, transmitted to me by the professional gentlemen of his Majesty's fleets and hospitals in different parts of the world, must, in a very short time, be very generally adopted. I have long considered the prevention, and the remedying of acute diseases, to depend on preserving the balance of the circulation; and, by restoring it when lost by the prompt and decided means promulgated in the enclosed, which I am induced to forward for your perusal, that you may be apprised of the advance the practice has obtained, and of the advantage resulting therefrom to his Majesty's service. When read, I will thank you to return them; and if you can afford time to arrange the practical remarks which they contain, and give them more extended publicity, by procuring them an insertion in the Edinburgh Medical Journal, you will greatly oblige, my dear Sir, your obedient humble servant.

Transport Board, June 15. 1812.

Extract of a Letter from W. H. Parson *Esq. Surgeon R. N. to* Dr Thomas Cochrane, *Fellow of the Royal College of Physicians, Edinburgh, on his Treatment of the Yellow-Fever.*

Dear Sir,—According to my promise, I shall endeavour, in as concise and explicit a way as the limits of my paper will admit, to acquaint you with the opinions that I have deduced from a constant and intimate observation, for nearly three years, of that disease vulgarly called *yellow-fever*. After the various theories published respecting its nature and cure, which I have most attentively perused, and to the material points of each of which I have repeatedly attended, you will be surprised at finding how much this very formidable disease has become simplified in my estimation; and while I deeply lament the excessive blunders that have occurred respecting the modus operandi of the disease, and in its treatment, I cannot but wonder, that, of our numerous writers thereon, Rush of Philadelphia, and our army physician, Jackson, should have been the only authors who appear to have possessed any thing like an accurate idea of its nature, and the consequently indicated treatment; although the whole of them, I believe, offer their remarks as the result of practical experience, and of anatomical demonstrations on the victims of the disease.

From the latter source of information, in which I also have had too frequent opportunities for observation, a new light resulting therefrom has gleamed upon my mind, respecting the *cause* of mortality in the continued and bilious remittent fever of the West Indies, which are, in my opinion, only modifications of the same disease, though authors in Grenada, and particularly Dr Chisholm, who practised in that island, consider them distinct.

This, then, Sir, is my creed respecting these fevers, resulting from deliberate reflection, repeated ocular anatomical demonstration, and very considerable practical experience therein.

The predisposing causes I consider, according to the old doctrine, to be *marshy miasmata*, the consequence of high atmospheric temperature, with moisture from putrid vegetable exhalations, with which the system of a newly arrived European being duly impregnated, a very slight exciting cause is sufficient to set this violent stimulus in motion, the first effect of which is demonstrated by an inordinate action of the *heart* and *arteries*, but a non-correspondent one in the *venous* and *absorbent systems*, which are, from the commencement of the disease, in a state of torpor, until the curative indications are resorted to.

The morbid force *is of a most violent and concentrated* character, exhibited in the peculiar determination of blood to the *brain*, in most instances, but in all to the *abdominal viscera* in particular, where, upon dissection, the most formidable traces of the disease are always present. Its natural course, then, in the primary stage, consists in strong and rapid movement, ultimately tending to the destruction of certain organs, by producing congestion and inflammation.

In what then do the curative indications consist?—for it is not certainly a disease in which the vis medicatrix naturæ can be confided in, as the French physicians in this place ought to be aware of. My answer is, in unloading the vessels as quickly as possible, by copious and repeated blood-letting, until the symptoms caused by the unequal action of, and between, the arterial and venous systems abate. These powerful means are to be aided by the free use of cathartics, so as to keep up a *constant action* on the bowels, by tepid diluent drinks and warm baths, and, what I consider would be still better, vapour-baths, to cause a determination to the skin.

The primary inflammatory symptoms being by these means removed, the cold or tepid affusion, according to the patient's strength, becomes highly serviceable in removing any remaining febrile action, or rather disposition thereto: But in the first attack, I am certain I have experienced an injurious tendency in the former remedy, when mercury formed my principal reliance; and I believe that most respectable author, Dr Currie, considered cold affusion inadmissible where *local internal inflammation* was present or expected.

As to mercury, I cannot absolutely determine whether some recoveries I have seen take place arose from its influence, or from other accompanying means. A very full and just trial of this mineral, and its almost total failure with me, obliges me to declare, that my faith in its efficacy, in the fever alluded to, is completely shaken;—and I very much doubt if it ever has effected any cure, after congestions have once taken place, where its use would be of most avail. Indeed, so remarkably torpid are the absorbents, during the continuance of the disease, that I equally doubt if any part of the mercury is absorbed, until the disease has been greatly moderated by other more effectual means.

When I first arrived in this country, vanity induced me to suppose, that because I had previously been some time in a tropical climate (the Brazils), that I was duly prepared to treat West India diseases. Subsequent experience has completely exposed to me my own presumption, and that I then possessed nothing more than commonplace school opinions concerning them, which practical observations have proved to be ill-founded and fallacious.

You very justly observe, that it is a disease which must soon humble self-sufficiency, and has confounded several fine-spun theories; and it also perfectly justifies the remarks in your last favour, that a man is bewildered when he has begun, as he thinks, sufficiently scientifically to work, and at last finds, from woful disappointment, that he has to strike out a new plan for himself.

This is *precisely* my own case: although I have the happiness to add, that my experience has not been purchased at the expense of many fatal terminations of fever, having never placed entire confidence in any particular theory, or even in the ci-devant supposed specific, Mercury, but ever kept in view the relief of urgent symptoms; and from very extensive practice in this fever, and ocular proof of the affections of the organs that particularly suffer, viz. the death of the stomach and upper intestines, by inflammation, congestion in the liver, and in the venous system universally, and, in some instances, the whole of the abdominal viscera in a diseased state; from these circumstances, I confidently hope in having arrived much nearer to perfection in the treatment of yellow-fever, and I am truly happy to state, that the result of my practice justifies such hope.

Since the opening of the hospital in this town, last April, where we have usually this fever in the highest degree, among the American and European seamen, which may be attributed, I suppose, to the predisposing cause, marshy miasmata, predominating in a high degree, and the exciting ones, new rum, and exercise in the sun, being inordinately applied, the result of my practice is, that out of 219 cases of high degrees of this fever, 36 have died, making little more than one in seven. It must also be observed, that many of these had been received after they had been ill from 12 to 24 hours; some where congestion had taken place, and others where the effects of congestion were present, forming the last stage of the disease, and evinced by a combination of gastritis, hepatitis, and enteritis, accompanied with the dreadful symptoms of these diseases. In this advanced state, no remedy I have yet tried is of any avail. Bleeding relieves for a time even after congestion has taken place, but in every instance where it has been resorted to in that state, it appeared to accelerate death. A remarkable difference is observable in this fatal event, between those who have, and those who have not lost blood; the former terminating their existence apparently under no sufferings, while in the latter they are frequently, and for the most part, horrid and indescribable.

There is another primary demonstration of the nature of the disease observable here very frequently, which appears to me depending upon an increased impregnation of the subject with the pestilential miasmata. Instead of finding on the first attack great heat of the skin, and strong arterial action, with the usual determination to the head, indicated by a flushed countenance, &c. we have the surface of the body constricted, the pulse small, and in some instances hardly discernible, though, upon pressure, tense and corded, coolness of the extremities, with the action of the heart in a manner suspended. These symptoms, with their concomitants increased anxiety, &c. indicate, I think, a higher degree of disease, a larger determination of blood to the internal organs, with an increased disposition to torpor in the veins; and the circumstances of the pulse always rising and becoming more pleasant after each bleeding, where such symptoms exist, and the repeating of the blood-letting according to their urgency, with extensive purging, and the warm-bath, but seldom failing in their removal, are sufficient proofs of this opinion being well founded; and I have actually within these eight months bled patients repeatedly under such symptoms, and thereby saved their lives, when I am positive European physicians of the first character, who had never before seen this fever, would have declaimed against me as a maniac, and predicted the certain loss of the patient in consequence.

My success, however, by the detailed mode of treatment which the hospital books will at all times authenticate, is the best voucher for my theory and practice, which I do not, Sir, presame to offer as novel, but which have been too much overlooked from not appearing to have reason for their basis; and unhappily for the many thousands who have fallen victims to this fatal disease in the Antilles, depletory measures in its commencement were formerly brought into disrepute, by the lancet being either too sparingly or too indiscriminately used,—or, in plain terms, from bleeding not having been carried to a sufficient extent to conquer the primary symptoms, or from having been had recourse to after congestion had formed, where it could only have the effect of more quickly destroying the unhappy sufferer. From this careless and indiscriminate use of an Herculean remedy, it became some years hence superseded by a supposed specific. I do not presume to assert that venesection alone, in the commencement, might put a stop to the progress of the fever, without the co-operation of repeated blisters, purgatives, &c. In the use of these, my experience does not accord with the practice of Rush, (an author I highly respect), who advises the exhibition of too large a dose of submurias hydrargyri, without a sufficiency of other cathartic medicine to dispose it particularly to act on the intestinal canal, as I find that four or five grains of calomel, combined with 15 or 20 grains of jalap for a dose, is much more effectual and certain in its operation than 10 of the former and 15 of the latter, which he prescribes. The purgative I usually repeat three or four times, at intervals of six and eight hours, finding that as long as the least disposition to a determination of blood to the viscera continues, and for a short time after the restoration of an equal circulation, the morbid hepatic secretion remains; and this circumstance itself assigns a cause for an irregular intermittent, with bilious vomitings, so frequently following a violent attack of continued fever in a new-comer, and which I myself personally experienced.

I have extended this detail to an unintended length, for which I have to claim your patience and pardon, hoping that the warmth I feel on so interesting a subject, and that the remarks I have the honour of communicating being truly genuine, the offspring of daily and hourly experience, will plead my excuse for its prolixity; and I rather lament the want of talent which obliges me to decline offering to the profession observations on this formidable disease, further than by endeavouring to enlighten and simplify this important complicated subject, and guard the inexperienced practitioner against indiscriminate error in the use of the only effectual remedies in the disease in question.

I have omitted to notice, that where the mischief has once taken place, viz. *congestion* and consequent *inflammation* and *gangrene*, human powers are but of little avail. The baths that you recommend in such a state (a strong infusion of capsicum), would in all probability be the most efficacious of any remedy that could be resorted to. I have had no opportunity, since your ingenious communications, of trying them; but depend upon it, whenever opportunities occur, they shall not be lost sight of, and their effects shall be faithfully reported.

I have, in the latter stage, seen good effects from bark enemas, and a very extensive use of diffusible stimuli. I am myself a living instance of this,—as when labouring under black vomiting, singultus, coldness of the extremities, and total insensibility, two bottles of champagne and nearly a bottle of brandy were got down in one night, from which, with insulating me with bottles of warm water, and covering nearly the whole surface of my body with blisters and mustard plasters, I was spared to be a witness to the efficacy of stimulants in the last stage of the disease.

His Excellency's secretary Mr K—— is another; but such remarkable instances are very rare; and although the means should never be neglected, confident hopes of their success must not prevail.

Your observation respecting the use of Fowler's solution in remittents and intermittents, is extremely correct. Its use with me in those diseases has been unboundedly successful, particularly where the bark has failed. Experience teaches me that intermittents in this country are very frequently connected with diseased viscera, particularly the liver; and from this cause I have frequently succeeded in their cure by the employment of mercury, after the bark and arsenic have failed.

Our hospital here, and its establishment, do equal honour to the abilities and philanthropy of him* who designed the former, and effected the latter. It is on the same plan as the Barbadoes naval hospital, which the same talent for all that is useful, and zeal in the cause of humanity also conceived. This refuge for the sick mariner will at present comfortably lodge 40 patients, and in case of emergency 60; and should the trade increase, the original plan of adding another wing will be pursued. It is supported by a tax of a quarter dollar per ton on all vessels entering the ports, and the patients received paying a dollar a day, while they remain in the hospital.

The fear of intruding prevents me from yielding to my desire of addressing Dr Harness on this subject; conceiving that, through that worthy man, the junior department of my brother officers might profit by my observations, and that by his judicious advice and authority a number of valuable lives might be saved to our navy in the West Indies. I shall feel highly pleased with a continuance of your instructive correspondence, and request you will be pleased to honour me with your remarks on the professional subjects contained in this long letter.

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* The Honourable Sir Alexander Cochrane, K. B. Vice-Admiral of the White, and Governor of Guadaloupe.

Colonial Hospital, Pointe à Petre,
Guadaloupe, 6th March 1812.

II.

Some Account of a Fever that appeared at Gibraltar in the month of October 1810, *communicated to the Honourable Commissioners of His Majesty's Transport Board, by* W. BURNETT, M. D. *Physician to the Fleet on the Mediterranean station.*

THE destruction occasioned by the epidemic that prevailed at Gibraltar in the year 1804, will be long remembered by the inhabitants, and the British empire at large, when the medical history of it is buried in oblivion.

It is a most extraordinary circumstance, that, after a period of seven years has elapsed, not one of the medical men who were there have given to the world the smallest account of it. We have no description of its symptoms, nor any statement of the methods which were employed for the cure; no beacon to direct us in the event of the same dreadful visitation again occurring;—all is left to the genius and industry of future practitioners. Since that period of disease and distress, the appearance of fever at any time in the garrison has been looked upon with a most suspicious eye; and the communication being now open with Spain, where, from the unhappy state of the country, individual distress is far more frequent, and public affairs less attended to, a fever has in many places, but more particularly in Carthagena, frequently broken out, and the garrison of Gibraltar have at different times been thrown into a state of great anxiety.

In the month of September 1810, several transports, having on board deserters from the French army, arrived from Carthagena, under the convoy of his Majesty's ship Imperieuse, among whom a fever appeared, of which some had died, having no medical assistance. They were put under strict quarantine; and a medical attendant having been sent from the shore was attacked with the same disease.

About this time between two and three hundred men arrived in a frigate from England, for the purpose of manning a flotilla of gun-boats, and were put on board the San Juan, lying in the mole. Shortly after their arrival, the heavy rains which occur at this season of the year took place, and were followed by intense heat. On the 28th, 29th, and 30th of September, I was informed by a letter from Mr Donnet, that twenty-six men from the San Juan were received into the hospital, and several more followed on the succeeding days.

The first symptoms were prostration of strength, succeeded by chills, cynanche tonsillaris, great irritability of stomach, and the usual symptoms of the epidemic of the season. The treatment of these patients was by purgatives, calomel, blisters to the region of the stomach; in some cases cold affusion was used, and two or three were bled once. Four died, one of whom had been bled.

In the case of one who was examined after death, marks of high inflammation of the brain were detected; the vessels on the surface were exceedingly turgid, and about six ounces of serum were contained in the left ventricle; the gall bladder was full of a dark inspissated substance, resembling pitch.

In the latter end of October, some persons living in the south, more particularly about the place called Scud Hill, were taken ill with a fever, said to be of a suspicious nature; and shortly after, several soldiers of the 7th Royal Veteran battalion, quartered in the town, were attacked with a disease said to be the Bulam fever; the same that had prevailed at Gibraltar in 1804. One serjeant and thirteen privates were in all attacked with this disease; there were also four with the bilious remittent, and one denominated the typhus fever.

Of the fourteen with what is called the Bulam, six died, and two out of four died with the bilious remittent; the case of typhus was convalescent in twenty days. Of the cases that occurred in private life, I have not been able to obtain any account, nor indeed have I a detailed case from the regiment; but I subjoin the general accounts of Mr Pym, deputy-inspector of hospitals, and that of Mr Kidson, surgeon of the Veterans.

Mr Kidson's Account.

"The first symptoms of the fever which made its appearance in the 7th Veteran Battalion in this garrison, in October 1810, were shiverings, succeeded by heat, acute pain across the forehead, sometimes extending over the whole head; pain in the back and loins; great oppression at the breast; full and quick pulse; tongue covered with a brown or black crust;* eyes red. On the second day, the patient felt easier; the breast and arms were covered with livid blotches; and sometimes the vomiting of a fluid, with a sediment resembling coffee-grounds. Death generally succeeded in a few hours afterwards. The medicines found to give most relief, were the antim. tartarisat., calomel, and opium."

Mr Pym's Account, communicated to me by a Friend, is as follows.

"In reply to your letter of this morning, I beg leave to inform you, that, in my opinion, the fever which prevails on board the transports from Carthagena, is the contagious fever of the West Indies, known by the name of the Bulam Fever, from its having been imported from that settlement to the island of Grenada in 1793. It is the same disease which prevailed in Spain in the years 1800 and 1803, and at Gibraltar in 1804.

"The most violent mode of attack is shivering, with excruciating headach, confined chiefly to the forehead; pain in the back and calves of the legs; the skin becomes burning hot; and the eyes have the appearance of a person intoxicated; the pulse beats from 100 to 110 in a minute; then follows thirst, with pain in the region of the stomach; but from sickness and irritability of stomach, no drink can be retained. There is an almost constant vomiting; at first of a bilious matter; but, about the second day, what is brought up, is mixed with a substance resembling coffee-grounds, with cold extremities, clammy perspiration, and relief of pain; a few hours after which, death generally ensues.† In this violent attack, the disease commonly terminates on or before the fifth day; hæmorrhage from the nose, mouth, and bowels, is also a very common symptom, with yellowness of the skin. Sometimes the disease is very mild, and seems to be cut short by the operation of an emetic and purgative.

"The disease differs very materially from the bilious or yellow-fever, which is common in this country during the summer months: This last is not contagious; the pulse often slower than natural. It is generally attended with inflammation of the liver; is relieved by bleeding, and seldom runs its course before eight or nine days. The first is contagious; the pulse very quick; does not bear bleeding; and generally terminates before the fifth day. It is very often attended with the fatal symptoms of black vomiting."

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* Note by Dr Burnett.—This could not be at the commencement of the disease. In 19 cases out of 20, the tongue is either white, or slightly tinged yellow, during the first three days; that is, until gastric symptoms commence.

† Note by Dr B.—The same train of symptoms have been remarked on board several of the ships of the fleet; but the patient has not been observed to pass through the different stages so rapidly as is here described.

The total number attacked in the garrison was thirty-eight, of whom twenty-three died. As I had no opportunity for personal observation, it will not be expected that I should give from myself an account of this fever; but a few remarks on that given by the two before-mentioned medical gentlemen, may not be improper.

Mr Kidson says, "his patients had great oppression at the breast; quick and full pulse; tongue crusted brown or black; severe headach, and red eyes." Surely no one will contend but that this is the description of a disease, highly inflammatory in the beginning, whatever its termination may afterwards have been. Yet no means are taken to allay the inordinate action. In truth, if any could have been thought of, worse than another, it was an emetic, which could only tend to confirm the congestion; and, by increasing the high vascular action, produce gangrene of some of the viscera, and finally hurry the patient to his grave. The use of emetics, for the cure of yellow-fever, is a practice that has long and deservedly been laid aside; for, in general, irritability of stomach and vomiting are the most formidable symptoms we have to contend with. The liver is commonly more or less inflamed, both in the yellow-fever of the West Indies, properly so called, and in the bilious remittent of this country:—how much then must this inflammation be increased by the operation of an emetic exciting such strong contractions of the diaphragm? The determination to the head was great and manifest, yet nothing appears to have been done to relieve it: if the lancet was deemed an improper remedy, cold affusion might have been substituted with advantage. Mr Pym says, "the pulse is very quick," by way of distinction; but I fear this would guide us but little in our diagnosis, as I imagine it to be the case at some period or other in all febrile diseases which terminate fatally, and generally to be met with in the bilious remittent. With respect to this fever "not bearing bleeding," I cannot learn that it has been tried in any case in the garrison of Gibraltar; nor have I reason to think was calomel, in any instance, carried so far as to excite ptyalism. The relief experienced by the patient on the second day is easily accounted for. The inflammatory stage of the liver had passed, gangrene had commenced in some of the viscera; cold extremities, clammy sweats, with relief of pain, were the natural followers, and death, in a short time, the certain consequence of so formidable a train of symptoms.

In the fever that prevailed at Gibraltar in 1804, bleeding was found, in many instances, of singular benefit. A gentleman now living on the rock, informs me that he was bled largely; that on the third bleeding he felt quite in heaven, and he had a rapid recovery: But it seems that this practice was not general, nor is there a case where the cold affusion was tried.

Why Mr Pym has called this the Bulam fever, it is impossible for me to conjecture.

Out of the fourteen cases that occurred in the 7th Veteran Battalion, only two had, what was supposed to be, the black vomiting, and six died. Cleghorn, in his diseases of Minorca, second edition, page 16. and Chap. III. speaking of the tertian, which is the bilious remittent and epidemic of the season, says, "but the greatest danger is to be apprehended, if a few drops of blood fall from the nose,—if black matter like coffee-grounds is discharged upwards or downwards," &c.

This is written in the year 1762, and the Bulam was not heard of till 1793. It is called contagious, which, even allowing it for a moment to be of true Bulam origin, is a point far from being decided even in the West Indies: Indeed the best of our practitioners consider the yellow-fever to be a disease not communicable either by contact with the sick, or through the medium of the atmosphere; and there is no instance, in 1810, of the attack of the fever at Gibraltar having been the consequence of any one's attendance on the sick. The only person taken ill in the hospital of the Veterans, is one classed under the head of bilious remittent.

The yellow suffusion is a common symptom in most of the autumnal epidemics, and was frequent amongst the marines at Portsmouth, who were attacked with a remittent fever, as related by Dr Lind, in 1765. Hæmorrhage from the nose, mouth, and bowels, are by no means symptoms solely characteristic of the Bulam; for they frequently occur in the fevers of warm climates, as I have myself witnessed; and are sometimes brought on by other causes, not dependent on the disease. In the summer of 1800, while lying in Mahon, with the expedition under the orders of Lord Keith and Sir Ralph Abercrombie, many of the ships' companies were attacked with the bilious remittent fever; amongst the rest the Diadem, of which ship I was then surgeon, had about forty men taken ill, the greater part of whom, by the employment of liberal evacuations in the early stage of the disease, rapidly recovered. One patient had extreme irritability of stomach, which I in vain endeavoured to allay, and during a forenoon I was absent on duty, my assistant gave him an emetic of tartarized antimony; the vomiting increased, and never afterwards for a moment left him; he passed blood by the nose, mouth, and anus, and finally died at the hospital. This was the only case that we lost. On looking over the notes I took of the whole, I find that the patients who were bled most recovered soonest, and in these cases the yellow suffusion was in general prevented.

In the latter end of October, or beginning of November 1810, the Leviathan went to Gibraltar to refit, and took under her convoy some transports with deserters, who also had a fever prevalent amongst them: The Leviathan lay in the Mole, and sometime after she was there, many of her ship's company were attacked with fever, attended with frequent stools and high inflammation of the abdominal viscera. Several died, but, on their having recourse to the lancet, every succeeding case recovered.

From the foregoing accounts, and from all the information I have been able to glean, I am inclined to think that the fever which prevailed at Gibraltar in 1810, was not, as has been said, the Bulam, but the genuine bilious remittent of the season.

No proof of contagion imported from the transports has been attempted to be produced; and it was before shown, that no one received the contagion from attendance on the sick on shore; and a gentleman, who has had much experience in the diseases of the West Indies, said that he could only call two or three of Mr Kidson's cases suspicious, at the utmost. It is therefore to be presumed, that this was a fever, only in some instances differing in grade from the epidemic of the season, and in which, by the adoption of prompt and liberal evacuations, the whole of the bad symptoms would, in all probability, have been prevented. A disease, so violent in its attack, must be met by a corresponding practice, or, in all probability, your patient is lost. There is no time for hesitation. If a patient complains to you of "excruciating headach, full and quick pulse, with suffusion of the eyes, and oppressed breathing," as soon as the hot stage of the fever is formed, the re-action will be great; bleeding both general and local should be had recourse to; not a bleeding of a few ounces, but you must bleed till a remission is produced; which will often not happen till your patient has lost fifty or sixty ounces of blood. A brisk cathartic of submurias hydrarg. with pulv. jalap. should be given, and repeated if necessary, and the whole of the antiphlogistic regimen strictly pursued. A determination to the surface should be promoted by small doses of the pulv. antim. and calomel, or the julep. ammon. acetat. and a plentiful use of diluents. By these means, if you have been called sufficiently early to your patient, you will seldom fail in procuring a complete remission in 24 hours. You must guard your patient from relapse by quiet, and by open bowels for a few days,—by an almost total abstinence from animal food; and at the end of a week or ten days, he will be able to return to his usual occupation. This I have done in hundreds of cases. But always bear in mind, "that the quantity of blood taken must be in proportion to the violence of the disease."

While I am writing this, I have before me a melancholy example of the evils of a contrary practice, in the cases of his Majesty's ships Temeraire and Invincible. Those ships, lying in Mahon, have had their crews attacked with bilious remittent fever. Twenty have died in the first, and seven in the latter; but independent of this, the whole who have had severe attacks are in such a state of extenuation, that it will be a long time before they can be fit for their duties, and are constantly relapsing.* But this is not all; they return to their ships with glandular obstructions, or the foundation of phthisis laid, and I fear many of them will eventually be lost to the service and to themselves. Knowing that the Temeraire would be in Mahon in the summer, I told the surgeon what would happen, and the plan he should adopt, but my advice was disregarded—the consequence is seen. But as if more particularly to confirm the truth and propriety of the practice I am advocating, and to prove incontestably its value, the surgeon of the Temeraire was himself taken ill; the charge of the sick devolved on Dr Ross, who is waiting to join the Resistance. He followed up the evacuating plan with zeal; and the result is, not one was sent to the hospital, and they all recovered rapidly. As a farther proof (if indeed that is necessary) it may not be irrelevant to notice what has recently occurred at Malta.

The Weazle sloop of war was refitting at the dock-yard, where 89 of her ship's-company were attacked with fever. Mr Wardlaw, the surgeon, immediately adopted the evacuating plan; the whole recovered, and returned to their duties within the month. About the same time, upwards of 100 of the Pomona's people were also taken ill; four died; three of that number had been some days ill before they came under Mr Allen's care at the hospital, and were not bled. The remainder recovered rapidly, which Mr Allen entirely attributes to early and liberal abstraction of blood, joincd to purgatives. During the winter of 1810, the Eagle of 74 guns was careening at Mahon, and her people being lodged in a barrack nearly a mile from the ship, had easy access to spirits and wine. The consequence was, that a fever made its appearance amongst them, which the surgeon considered of a typhoid nature. But I soon undeceived him; and although upwards of fifty were taken ill, not a man died, or had any visceral disease left. It would be easy for me to multiply such instances, but sufficient has been said for our purpose.

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* Since writing the above, I am sorry to remark, that dysentery has attacked many of the convalescents.—*21st Oct.*

From what has been shown, it is fair to assume, that if the practice I recommend had been adopted at Gibraltar, we would have had "no hæmorrhages, no livid blotches, no black vomit," but that the disease would have been conducted to a happier termination. Every day's experience tends more and more to confirm the truth of the observation, "that many of our fevers, in which the functions of the sensorium are disturbed, or other obvious marks of congestion or disordered vascular action in the encephalon occur, are allowed to pass into a typhoid type, from an omission to remove that morbid condition of the head in the outset."

The preceding, it must be acknowledged, is but an imperfect account of the fever, as it appeared at Gibraltar; but as I was not myself present when it happened, my means of giving better were necessarily circumscribed. What I have been able to obtain, is faithfully narrated. In the observations I have made, in the deductions I have drawn, and in the outlines of the plan of treatment I have ventured to think would have been successful,* I trust I am borne out by their own accounts of the disease. It would have been easy to have entered into a more extended criticism, but this was foreign from my purpose.

Note by the Editors.

We have always regretted, in common with Dr Burnett, and all others zealously interested in the progress of our science, the total silence of the professional, and especially of the official professional men, to whose lot it fell to witness the progress of the various instances of malignant fever which have occurred in the garrison of Gibraltar. On a former occasion, we reprinted some documents which we met with in a common newspaper; and on the present, with the view of rendering them as complete as we can, we subjoin to Dr Burnett's observations another extract from the same source of information. It is the report made by Mr Vance, surgeon to the forces, upon his return from Carthagena and Alicant, whither he had been sent by his Excellency the Lieutenant-governor, to ascertain the nature of the disease said to prevail in those cities.—

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* Every day adds a proof to what I assert on this head.

" *His Majesty's Brig Richmond, at Sea,* 1*st September* 1811.

" Sir,—In obedience to the orders of his excellency Lieutenant-general Campbell, and the instructions I received from you to proceed to the ports of Carthagena and Alicant, for the purpose of ascertaining the nature of the disease said to prevail in those places, I have now the honour to inform you, that after making the most minute investigation in the lazaretto, city, and royal hospitals in Carthagena, I have no hesitation in declaring, that the same disease exists there at present which prevailed in the years 1804 and 1810, and which, with some variations, I have witnessed so many Europeans fall victims to in the West Indies.

" The patient is generally attacked suddenly with cold shiverings, pains in the head, back, loins, and thighs; the skin becomes excessively hot; the pain of the head increases, particularly over the orbits of the eyes; the eyes themselves appear to the patient as if forcing from their sockets, have a particular red or fiery appearance, and the whole face appears considerably flushed; a continual restlessness prevails, the patient constantly throwing himself from one side of the bed to the other; at this period the pulse is very frequent, seldom under 120, and generally much more. Considerable irritability of the stomach always prevails; the vomiting is at first of a bilious appearance, and sometimes only the drink that has been swallowed; but, as the disease advances, it assumes a darker colour, and lastly deposits a grainy sediment, resembling the grounds of coffee. From this stage of the disease no patient has been observed to recover; and in those cases that have terminated fatally, or assumed the most serious appearances, suppression of urine has generally taken place. On the first attack, the tongue has generally a white appearance, which gradually becomes darker, with a brown streak in the centre; and towards the close of the disease, it becomes quite black, furred and dry. When the disease has advanced rapidly, the patient often becomes delirious on the second day, and dies either furious or comatose on the third, and sometimes the fifth; but, when the crisis has taken place on the seventh day, the black vomiting has been always most frequent. In some who have died comatose on the fifth day, considerable quantities of pure blood have been vomited up. Sometimes the patient, after walking about and declaring himself well, has died perhaps in a few minutes.

" About the third day, the eye loses its red appearance, and becomes tinged with yellow, after which it gradually extends to the face, neck, breast, &c. and before death generally assumes a lead or putrid-like appearance. The pulse, previous to this, has sunk considerably, and seldom strikes oftener than 50 or 60 times in a minute. Hæmorrhages from the nose, mouth, ears and bowels, have frequently happened; and vibices have sometimes made their appearance, as well as deafness, and glandular swellings.

"On the first attack, the patient is generally costive; but previous to death, diarrhœa often takes place, and what is voided has always a black, putrid appearance, and excessively fœtid smell. All these symptoms have not made their appearance in the same patients; but I have observed the whole in the numerous cases which presented themselves in the lazaretto, and other hospitals in Carthagena. The disease has not been confined to any particular part of the town, nor is any person exempt from it who has not had it in the years 1804 and 1810.

"I must beg leave to observe to you, that the number of deaths that have taken place (a diary of which I enclose) has not been exclusively occasioned by the yellow-fever.' The bilious remittent prevails here also; and in the royal hospital I observed many of the soldiers labouring under what we call the gaol-fever, which they must have brought with them from the army; where, I understand, they have undergone much fatigue, and suffered great privations both in food and clothes.

"The number of deaths may appear trifling for a town, the population of which is generally calculated at 36,000 souls, (the estimate in 1806); but when we consider that the fever last year reduced this number considerably, and that every person who had the means of escape has left it this year, leaving little more than a population of 9000 in the city, most of whom had the disease upon former occasions, you will be able to form a more just idea of the mortality. The physicians cannot account for the disease making its appearance this year at Carthagena; but I have good reason to suppose it might have remained dormant during the winter, till roused into action again by the summer's heat; and I am more disposed to favour this opinion, from the circumstance of their using little precaution last year—neither destroying the bedding, clothes or other furniture liable to preserve contagion, of any of the people who died of the disease, as they had done in the year 1804; and I am sorry to observe that they have gained little by experience, as they pursue the same system to the present moment. The winds for several months have blown from the Levant, and the thermometer has generally ranged from 82 to 84 and 86 degrees, on Fahrenheit's scale.

"In Alicant there is not the slightest degree of contagion existing at present, nor does it appear to have been so free from disease of any kind at any period for a series of years back. In the town of Elche, about four leagues distant, the yellow-fever is said to have made its appearance, in consequence of a soldier from Carthagena, with five or six people who assisted him in his illness, having died after a few days' sickness. But the communication with that part of the town they resided in having been cut off, sickness and mortality are said to have ceased; and as a cordon was placed between the two towns, and a most rigid quarantine established, had I availed myself of ocular information, I should not have been admitted into Alicant again. In Murcia, the capital of the province, and distant about thirteen leagues from Alicant, the disease has made its appearance with much more serious effects. It is also said to have been carried there by some refugees from Carthagena; and the junta of Alicant have placed it in a state of quarantine, in the same manner as that of Elche. However, as the cordon is placed so far from the city, and little attention paid to persons coming from the eastward, together with the number of people rushing there from the various places near Carthagena, where the French have made their appearance, I am strongly of opinion that that place will not long be able to escape.—I feel myself much indebted to Major-general Roche, and the British Consul at Alicant, for the assistance they afforded me in every thing relating to the object of my mission. The junta were equally disposed to render me every assistance.—In Carthagena I also experienced every attention from the governor-general, consul, and physicians constituting the board of health, that the service I was employed upon could possibly require. I have the honour, &c.

(Signed) R. Y. Vance,
Surgeon to the forces."

" William Pym, Esq.
" Depute inspector of hospitals."

Deaths from 29th July to 29th August inclusive, 1811.

July	29	12	Aug.	6	4	Aug.	14	24	Aug.	22	28
	30	5		7	11		15	14		23	19
	31	5		8	7		16	12		24	24
Aug.	1	7		9	7		17	8		25	29
	2	8		10	16		18	20		26	34
	3	2		11	7		19	22		27	20
	4	4		12	20		20	22		28	20
	5	8		13	21		21	8		29	26
										Total,	465

III.

Report of the Treatment adopted for the Cure of Contagious Fever among the Seamen belonging to his Majesty's Navy, that were sent ashore to the Royal Hospital at Plymouth, and communicated to the Honourable Commissioners of his Majesty's Transport Board. By J. Wilson, M. D. Physician to the Hospital.

Gentlemen,—A number of sick having, early in the last month, been sent to this hospital from his Majesty's ship Diadem, labouring under contagious fever, I have taken the liberty of stating to the Board the nature and symptoms thereof; together with the mode of treatment adopted by me on the occasion. The disease appeared to be of the same type as that which prevailed on board of the Romulus, in the month of January 1811. On their admission, I found them complaining of severe pain all over them, (as they expressed it), but particularly affecting the head, breast, and loins, and a considerable degree of lassitude; pulse rather full, but not exceeding 100 in a minute; skin hot and dry, tongue foul, thirst great, and bowels in general costive; as the disease advanced, redness of the eyes, strong pulsation of the carotids, prostration of strength, stupor, delirium; involuntary discharge of feces and urine supervened, and, in one case, singultus with subsultus tendinum. These were the symptoms as they occurred in the progressive state of the disease. The treatment was strictly antiphlogistic; the lancet was early and liberally used; bowels repeatedly and freely evacuated; saline medicines, combined with antimonials, were given with small doses of submuriat of mercury, and antimonial powder at night; the pediluvium was also of considerable service. The head shaved, blisters applied, and when the use of the lancet could not with propriety be admitted, repeated cupping on the temples afforded the most marked and singular relief.

This mode of treatment was continued until the violence of the disease was subdued; and I have great satisfaction in saying, that of fifty patients admitted into this hospital, under my care, from the Diadem, for the cure of the above disorder, one only died; nor did I find it necessary to prescribe either bark or wine to perfect their recovery,—a pint of porter was the only addition made to their ordinary diet. And here allow me to add, that I feel myself much indebted to Mr Campbell, the hospital-mate, who for some time has been my assistant, for his unremitted and particular attention on this, as well as on every other occasion.

Royal Naval Hospital, Plymouth, Feb. 25, 1812.

IV.

On Nervous Affections, and on the Treatment of Chorea Sancti Viti. By DAVID UWINS, M. D. Aylesbury, Bucks.

Of those affections which are, in a somewhat vague and sweeping manner, termed nervous, there has been, within the last five years, an evident increase. This is the more to be lamented, as the pathology and practice in these diseases is more obscure than in almost all others. In most other complaints, we are comparatively familiar with the geography of the ground, if I may so say, upon which we are travelling; and if we come to the practice of medicine, well furnished with anatomical knowledge and physiological principles, we are less likely to wish left undone what we have done, and that we had done what has not been done. But this obscurity and perplexity *in se* have been increased by a disposition to philosophize at the expense of facts. If "*debilitas gignit spasmum*" is a medical maxim, requiring, in its application to practice, much modification, greatly more so is that axiom which, if it have never been given in words, has been pertinaciously and obstinately acted upon in practice, *debilitas gignit omnes ferè nervorum morbos.*

The generalizing principles of the disorders in question, introduced by the systems of solidism, and confirmed in the school of excitement, are now, however, in a great measure falling away before the weight of observation and fact; and this country would have been saved many a pound of Peruvian bark—the inhabitants of it would have been excused from swallowing many a bitter potion—if we had come earlier to attend to what our continental neighbours call the *gastric* state, in connexion with diseases of the nervous class. But, as if to make up the time lost on this score, are we not now running somewhat into the opposite extreme? Where we purged too little, do we not now purge too much? And from dreading the sight of one drop of blood, as if we feared, in the language of the poets, that the soul would come rushing through the wound that had been made, are we not now, some of us, in danger of plunging into the very depths of Sangradoism; and of imagining, that, while a poor fellow has one drop of blood remaining in his body, some dregs of his disease must necessarily remain with it.

But I did not intend this paper to be a paper of theory, but a recital of cases; and I shall proceed, in a very brief manner, to an account of these cases; which, as having, at least some of them, somewhat of peculiarity in their features, I have judged worthy to be recorded.

It is proper to premise that, in consequence of perusing several accounts, in this Journal in particular, of extraordinary cures performed by the purgative treatment, as recommended by Dr Hamilton, of *Chorea Sancti Viti*, I determined to make a clear and unprejudiced trial of the plan, on the first opportunities that should be offered me.

The first case, then, that came under my care, was that of a youth about seventeen, the son of a painter in this town, who, with that drawing of one leg after him in walking, so characteristic of this complaint, complained likewise of vertiginous sensations and pains in his head, and had a remarkably wide pupil of the eye. This youth had been put, by the medical gentleman who attended him, upon a course of tonics, and ordered to drink wine; and I was struck with the earnestness with which his father answered me, "Yes, always," to my question, "Whether does he not appear worse after taking wine?" Here then was fair ground for laying aside the tonic, and commencing the purgative plan, which I did in the manner that is unnecessary to detail; and though I did not turn him out of my hands cured, he left me most evidently improved in health and *strength*. I have been lately inquiring of his mother about him, (for he has left the place himself); and she tells me, that he is much better; and, with the same positiveness that the father declared him to be invariably worse after wine, does the mother declare that he was always stronger and better after taking his purges, *though she never could discover any thing particular or unhealthy in the appearance of the evacuations.*

The next case of this complaint that came under my care, was one which excited, on all accounts, a very particular interest in my mind. It was that of an amiable young lady, who has been for several years subject to the regular returns of a periodical lumbar abscess, which originated, when she was very young, in a disease of the spine; and which, by the great pain and discharge it has occasioned, has at different times reduced her to an almost lifeless state. This young lady, while looking out of an opened sash-window, which was in bad repair, had the sash fall suddenly down upon the back-part of her head about the neck. The accident produced no immediate inconvenience beyond a stunning sensation, which did not last a long time. The family was about a week's time from this to set off to the sea-coast; but, before their departure, Miss ——— had St Vitus's dance upon her, fully marked. She could not sit without motion for any length of time, and had generally convulsive and involuntary actions in her arms and legs. The origin of the disorder I thought fairly referable to the accident above mentioned; but, as she was just upon the point of having the advantages of residence upon the sea-coast, it was thought expedient to make trial of them. In about a month's time, however, she returned to Aylesbury with the disease still upon her, which indeed was, now that I was applied to by her mother, very considerably increased. I must confess that I commenced the evacuating plan with this young lady, with expectations much more sanguine of success than the event justified me in entertaining. Mrs ———, who is a lady of uncommon intelligence and judgment, joined with a larger share of maternal affection than falls to the lot of even Englishwomen in general, was made acquainted with the plan I intended to pursue with her daughter; and I persevered without any intermission for more than three weeks, when I found, to my great grief, the involuntary motions rather to have increased than abated, and the disorder altogether assuming a more confirmed and obstinate character. My patient was about this time just at the age of puberty, and I deemed it a fair presumption, that both the present and her original complaint, might be critically, as it were, terminated by the establishment of a regular menstrual discharge. With this view, I ordered her some emmenagogue medicines, still continuing the cathartics occasionally, though not so frequently as before. These, however, not answering the intention so fully as was wished, and the malady still gaining ground, I came to the determination of abandoning altogether her present mode of treatment, and gave her the *argenti nitras* in doses at first of a sixth part of a grain three times a-day, which was gradually increased to nearly five grains in the course of the day. The least disposed to scepticism amongst us know, that sequence is not always *consequence*, and that medical evidence is only of a presumptive nature; but certain it is, that my young patient began evidently to amend almost immediately from the commencement of this last mode of treatment, and she is now quite free from the disorder. Her menstruation likewise promises regularity, and she has passed the usual time of the returns of the complaint above-mentioned. It ought to have been stated, that nearly the whole of the time that she took the nitrate of silver, she drank every morning some valerian tea.

Here then was a case which did not speak any thing in favour of the purgative treatment. I ought to have said that the bowels were not constipated, nor was there any thing of disordered appearance in the alvine discharges; but neither was this the case in the first mentioned instance, in which purgatives were evidently advantageous.

During the time in which Miss ——— was under my treatment, I was desired to visit a young female, (the daughter of a Mr Jackson of this town), who was in her thirteenth year, and had *chorea*, if I may so say, in more of an epileptic form: Her countenance indicated a considerable degree of irritability; the pupil of the eye was much dilated; her head was at times in pain, and the whole body was agitated to such a degree, that, in whatever posture she might be, it was always necessary for at least one person to hold and restrain her. In this subject, the complaint in question had followed quick upon an eruptive fever. I began the plan of treatment by calomel and purges, as in the former instances, and they brought away a very considerable discharge of such kind of feces as we are accustomed to see attendant upon worms; and beside mucous discoloured stools, the two or three first doses of calomel, &c. occasioned the discharge of considerable scybalæ. Now, then, I had every reason to hope that our plan would be crowned with speedy and decided success; but, although the patient was certainly not worse than at first, she most evidently was not better for some weeks, nor till after the commencement of a powder, administered two or three times a-day, composed of the following ingredients:

℞ Pulv. Digitalis gr. iij.
Ammoniareti Cupri gr. iv.
Pulv. Myrrhæ ʒi. ft. Pulvis.

Under this plan she gradually amended, and her cure was complete in about two months from the commencement of the complaint.

Some time after this, Mr Jackson again called on me, with a request to visit another daughter in her sixteenth year. I found this girl lying in a kind of trance; and although she was roused up to answer me some questions, she suddenly relapsed, and uttered, for perhaps ten minutes in succession, connected sentences of a rhapsodic religious nature, in the manner and with the tone which are usual with the Society of Friends, to which this female belonged. This state continued about eight-and-forty hours, with intermissions; and on the second morning of my visits I found her lying in bed, under the full influence of chorea, with much and violent involuntary motion.

It was a remarkable and melancholy coincidence, that now the eldest daughter of Mr Jackson, (a fine girl of eighteen), whom I had attended some months previously in rheumatic fever, was attacked with St Vitus's dance, without however the preliminary state just mentioned of the second; and this coincidence was still more particular, as it did not appear to be the consequence of imitation, the females living in different houses at the time. The same medical gentleman was called in to this (the eldest daughter), who had attended with me in the first case, and he ordered the same plan to be adopted, (with an increase of dose proportioned to her years.) For the second, who was lying in the condition above described, and who had, I think, previously a blister applied to her back, I ordered a brisk purgative to be followed by ten drops every six hours of the tincture of foxglove, prepared according to the pharmacopœia of the London College. These medicines were taken before the occurrence of the involuntary motions, which, when they did occur, were, as before-mentioned, exceedingly violent; so that I had now two patients (sisters) in pretty nearly the same state. With the one, the eldest, it was judged advisable to go on with the powders she had been taking, particularly as the parents had a predilection for them, in consequence of the benefit that had attended their administration in the youngest daughter, now recovered; and for the other, I now ordered as much as thirty drops of the tincture of digitalis every six hours. Together with this treatment, electricity was administered with some power; and the beneficial consequences of this plan of treatment were very shortly seen in the almost total cessation of the involuntary motions. All the disorder that now remained was an extreme degree of sickness at the stomach, and an entire inability to stand on her legs without support. The foxglove was now discontinued; and, having premised a purgative, we began with this patient bark and steel, under the use of which she gradually recovered the powers of standing and walking.

The melancholy task now remains to me of resuming the other case, (that of the eldest daughter), and following it to its fatal termination. With her, I have already said, foxglove in smaller doses was given, joined with the ammoniaret of copper and myrrh; and it was my intention of giving a fair comparative trial to galvanism, by commencing its use at the same time with electricity in the other. This intention was, however, frustrated; and from not being able to procure the galvanic apparatus complete, as well as from the difficulty of applying it properly, the galvanism had not certainly a fair trial. Under the use of the above medicines, and the galvanism, in the way it was employed, my patient evidently got worse; and the convulsive motions, defective articulation, and generally disordered state, became much more violent and distressing than in any instance I ever before witnessed, either in public or private practice. We now had recourse to very large doses of the foxglove, as in the former case; but it produced such an extreme of sickness and disorder, as to prevent the possibility of its being continued. Opium likewise always appeared to derange the system considerably, although the bowels at the time of its administration were loose, from the employment of purgatives; and these last, it should have been said, were given with more or less freedom and frequency during the whole course of the complaint.

Nature, in this poor girl, after struggling for a month with the disorder, in the violent degree I have above described, at length yielded, and she lost her severe sufferings in the arms of death.

The collation and comparison of the above cases, leave, I confess, my mind in embarrassing uncertainty. What was the proximate cause, in either of the instances detailed, of the complaint? What was the immediate cause of death in the last? I should have been less surprised, had the disorder of the youngest girl, which stands first in the narration, ended fatally, both because it was an immediate sequel upon fever, and because, when I was first called in, there were symptoms strongly indicative of effusions into the ventricles of the brain, or, at least, of some more mischief in the head than merely disordered action. Should we have found, upon dissection, serous effusions in the brain of Miss Jackson? Whence did such effusions originate? Strabismus was certainly in the last stages most marked and evident; indeed, the countenance altogether was similar to that which is shown in the concluding scenes of hydrocephalus internus, when that disease terminates in death;—and when does it not? But, further, was this state of the brain, supposing its existence, primary or secondary? There was certainly, *prima facie*, less reason to suspect it in this, than in the instances of the two other sisters, whose complaints, as I have said, both began by signs menacing some serious mischief in the head. Would any other plan of cure have been likely to have proved a cure? Perhaps to some of these questions on this interesting case I may be favoured with answers. It certainly behoves medical men to turn their minds, in the present day, in a more particular degree to those maladies, of which (of some of them at least) we now know very little more than that they are connected in some manner or other with the nervous system more especially. I am disposed to suspect, that those among us who almost confine their attention to the alimentary and intestinal canal, as well in forming their rational as their medical management of the diseases in question, sometimes exalt mere effects into causes. It is my intention to treat more at large, in a separate pamphlet, the subject of visceral and intestinal, as connected with nervous complaints; but I shall beg leave to suggest here, whether deranged secretions and visceral obstructions may not, much oftener than is imagined, be mere effects, or simultaneous expressions of maladies, that are looked upon as dependent upon, rather than the occasion of such a state of the abdominal organs? This question, were it merely theoretical, would not be worth much; but it is, in my mind, very intimately associated with practical inferences.

It was my intention, in the present paper, to have transmitted a curious case of the discharge from the stomach of a woman of a large concretion; but I have trespassed so much upon the pages of the Journal, and my own time, that I must defer this relation to a future opportunity. *

Aylesbury, Bucks, June 11, 1812.

V.

On the Cure of Tetanus by Opium and the Warm Bath. By THOMAS CHRISTIE, M. D. of the Royal College of Physicians, London.

HAVING lately had an account from Ceylon, of a case of Tetanus from wound, treated successfully by Mr Scratchley, surgeon of the Royal Artillery at Columbo, by means of large doses of opium, and the frequent use of the warm bath, I have been induced to refer to some notes of my own on this subject; and as the practice in tetanus seems still unsettled amongst English surgeons, I am disposed to think that their publication, in your widely-circulating Journal, may be of use, by recalling the attention of practitioners to the old, and, in my opinion, efficient remedies, in this formidable disease, of opium and the warm bath, in preference to trusting to purgatives and cold affusion, which I am led by experience to consider as more doubtful remedies, though they have of late been recommended by very high authority.

The subjoined notes were written in Ceylon in 1809, soon after an unusual number of cases of tetanus had fallen under my inspection, and have a reference to the chapter on that disease in my friend Dr M'Grigor's able work, on the Diseases of the Indian Army in Egypt, which I was then perusing, and in which the use of mercury, and baths composed of warm broth, are recommended.

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* It almost escaped me to ask, Whether, in the opinion of any readers or correspondents of the Journal, the nitrate of silver is decomposed by the saliva and gastric juice, or whether it acts upon the system *as* nitrate of silver?

Cheltenham, 13*th June*, 1809.

Notes on Tetanus, written at Columbo in January 1809.

I have never seen the broth or slush bath used in tetanus; but have employed very freely the warm bath, cold affusion, mercury, and opium.

In the prognosis of this disease, an important distinction is to be drawn between symptomatic and idiopathic tetanus; I mean with or without an wound. In the latter, which in India is supposed to be sometimes occasioned by exposure to the land-wind in the night, I think I have saved half my patients by the warm bath, mercury, and opium: but in symptomatic tetanus from wounds, although I have most assiduously employed the same remedies, and also cold affusion, I have never known of a recovery in this island, except in one case, in which the warm bath was frequently used, and very large quantities of laudanum given, to which last remedy the patient I think evidently owed his life. The case, which was immediately under the charge of Mr Leath, * assistant-surgeon of his Majesty's 19th regiment, is very ably and accurately detailed in the journals of the regimental hospital of that corps; but as it is necessarily drawn out to considerable length by daily reports, the following outline of the case may be sufficient.

Manus M'Gowan, (private in the 19th regiment of foot), a stout plethoric man, aged 22, of a fair complexion, was received into hospital at Columbo on the evening of the 28th May 1808, with a wound from a musket-shot through the elbow-joint, which he had inflicted on himself in a fit of drunkenness and jealousy. The bones appeared to be shattered, and the wound was such as would have justified immediate amputation; but the patient having a convulsive affection of the lower jaw and back, it was feared he might have died during the operation, which was therefore deferred, and an opiate given.

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* Mr Leath, who is now surgeon of his Majesty's 4th Ceylon regiment, and lately arrived in England on furlough, also saw the case of the artillery-man treated successfully by Mr Scratchley, and referred to above, which he represents as almost the counterpart of M'Gowan's case, as to symptoms, duration, and treatment; with this difference, that the wound in the artillery-man was only a slight contused wound on the forehead and nose.

13*th June*, 1812.

Next morning he was so perfectly free from spasm, pain, or fever, that it was hoped the arm might have been saved, and his wound went on well till the evening of the 13th June, when he was seized with symptoms of tetanus, in consequence of which laudanum was given with some relief, and amputation proposed, which he declined.

On the morning of the 14th, when I first saw him after the accession of the tetanic symptoms, the stiffness of the jaw increasing, full doses of laudanum were ordered, and at 9 A. M. fourteen ounces of blood were taken from the arm, but without much relief. At 11 A. M. the symptoms increasing, and the wounded arm occasioning very great pain, it was removed at his own request; immediately after which, his pulse sunk from 140 to 120, and he expressed himself as having derived great ease in consequence of the operation.

The tetanic symptoms however continued unabated, or rather they increased, as, besides stiffness of the jaw, and starting, attended with rigidity of the muscles, he complained of pain towards the ribs and epigastrium, difficulty of breathing, and retention of stools and urine. Laudanum was now given very freely, with nitrous æther, and the warm bath employed, according to the urgency of the symptoms. These having abated a little on the 17th and 19th of June, the doses of laudanum were given at greater intervals; but an increase of the symptoms following, the laudanum was gradually increased from the 19th till the 25th, when the dose was 2¼ drachms every two hours, with an equal quantity of nitrous æther. On the 3d of July, this dose was still further increased to 2½ drachms, making 3 ounces 6 drachms of each daily, which was continued with little variation till the 14th of July, with the frequent use of the warm bath, at 104 or 106 of Fahrenheit, which last always seemed to give relief.

After the 14th of July, the dose of the opiate was gradually diminished, and at the end of that month he was convalescent, and only took an anodyne at night. Early in September, his stump being healed, he was discharged cured, and remains well.

The laudanum in the first instance occasioned great stupor and drowsiness; but this effect after a time wore off, although the dose was afterwards greatly increased.

Mercury was also given, and gently affected the mouth, but appeared to have little or no effect in diminishing the rigidity of the muscles, which was always somewhat lessened by the warm bath, in which he was generally kept for about half an hour, when he complained of faintness, with profuse perspiration.

Purgatives and injections were also given to procure stools, and diminish irritation; but the tetanic symptoms were evidently kept under, and finally removed, chiefly by the influence of the opium, as the symptoms were more than once increased on a small diminution of the dose, or in consequence of it being given at longer intervals.

The quantity of laudanum given in the course of 42 days, from the 13th June to the 24th July, was 49 ounces 6½ drachms, which was of the best quality, from the Army Elaboratory, 24 drops of it answering as an anodyne in ordinary cases. A small quantity of opium was also occasionally rubbed in with mercurial ointment and camphor.

The nature of the original wound was, in this case, such as imperiously to call for amputation, independent of the tetanic affection, the bones of the joint being much shattered, and the removal of such a source of irritation evidently lowered the pulse; but I have my doubts whether this case, though successful, ought to induce us to adopt amputation as a remedy in tetanus, where the original wound is of a slighter nature than that consequent on amputation.

A few weeks previously to the occurrence of this case, we had three others of tetanus in the hospital at Columbo, from amongst the men wounded in the action between the St Fiorenzo and Piedmontese frigates.

The first was from a dreadful wound in the shoulder-joint, which must of itself have proved fatal, and little could be done.

The second arose from a slight wound in the foot, and was rapid in its progress, terminating fatally in three days, although the mouth was affected with mercury, cold affusion used, and opium given to the extent of 48 grains daily.

In the third, which occurred in an English sailor, named Wakefield, who had his arm amputated, and also a fracture in the os humeri, the patient lived about ten days after the accession of the tetanic symptoms; and at one time the disease seemed mitigated, and arrested in its progress, although, in the end, the case terminated fatally.

The remedies employed were, first, mercury, which soon affected the mouth, but seemed to produce little effect on the symptoms; secondly, opium given in large doses, both in a solid and liquid form, and also rubbed in upon the throat and jaws, which produced stupor, drowsiness, and a considerable diminution of the symptoms; thirdly, cold affusion; and, latterly, the warm bath.

The effect of cold affusion in these cases was, to produce a considerable shock, succeeded by perspiration, and some degree of relaxation of the jaw and other muscles affected with rigidity; but this relief lasted for a few minutes only, and, on the whole, I think the warm bath had a more permanent effect in alleviating the symptoms.

Wakefield, after a time, refused to submit to cold affusion, or take his pills of opium, when laudanum was substituted, and was at one time given to the extent of 12 drachms daily, besides frictions of opium with mercurial ointment. The night before his death he was unusually easy; but at 11 A. M. of the 30th March, he was seized with faintness, hiccup, and loss of speech, attended with an entire relaxation of the jaw, and in an hour afterwards expired. Injections and purgatives were given when indicated throughout the course of the disease, which was attended with an irregular state of the bowels; and wine, soups, and sago, were liberally given, with a view to support his strength.

I have had occasion to treat a case of tetanus consequent on parturition, which the native practitioners of Ceylon inform me is not an unfrequent occurrence here; and although I do not recollect to have read, or before heard of the occurrence of tetanus, during, or after labour, it does not seem extraordinary that this disease, which is frequently produced by a very trifling wound, particularly in tropical climates, should take place after parturition, which often occasions great injury to the parts concerned.

The patient I saw was a healthy young woman of the Portuguese cast, who, two days after delivery of her first child, was seized with rigidity of the jaw, and other symptoms of tetanus. The native doctors and midwives immediately pronounced her incurable, and their predictions were fulfilled; although, in consequence of my directions, mercury, opium, and the warm-bath, were freely employed, with temporary, but fallacious relief.

The numbers of fatal cases of tetanus from wounds, which I have seen, or have been officially reported to me as superintendant of hospitals in Ceylon, may, I think, amount to twelve; and I recollect having treated four cases of tetanus without any wound, two of which did well.

The occurrence of locked-jaw in horses, after the operation of docking the tail, is frequent in Ceylon; and after the disease was once formed from this cause, I have never known an instance of recovery, although I have seen purgatives, opium, and the cold bath very freely employed.

VI.

Dr Adams's *Answer to* Mr Edmonstone, *respecting the Venereal Disease at Otaheite.*

Every inquirer after truth must be pleased when he meets with objections to his opinions candidly stated; and to leave them unanswered may argue disrespect to his antagonist. In noticing, however, Mr Edmonstone's remarks, which make the first article of your last Number, you must allow me to begin with expressing a wish that one quotation from me had been given more at large, and one expression of his own had been omitted.

Mr Edmonstone's words are—

"To this conclusion (of Mr Wilson's) Dr Adams not only fully assents, but founds on it various reasonings of his own, and expresses his regret that Mr Hunter should have allowed himself to reason "*on data so ill established as the South-Sea disease.*"

I do not recollect any reasonings of my own founded on Mr Wilson's conclusions, unless a few reflections on the improved accuracy introduced by Mr Hunter, and on the importance of minute description, can be called such. Still less was it my intention to accuse Mr Hunter of reasoning on insufficient data, when I express a wish that he had not availed himself of an unnecessary inference from an ill-ascertained fact. The difference is no otherwise important than lest it should lead the reader to suppose that the truth of any of Mr Hunter's doctrines depends on an ill-ascertained datum. *

The expression of Mr Edmonstone's, which I could wish had been omitted, and which I am sure he will be ready to correct, is as follows: "The opinion promulgated by Mr Wilson, and *so pertinaciously* insisted on by Dr Adams." Now, as Mr Edmonstone is the first person who has given me an opportunity of defending Mr Wilson, I cannot help thinking that the charge of *pertinacity* is at least premature.

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* The words are, "When Mr Hunter has so many *proofs* that the *two forms* of the disease might be excited by the *same* matter, we cannot but lament he should have attempted an *inference* from data so ill-established as the South Sea disease."—Mr Hunter on the Venereal Disease, Dr Adams's edition, 8vo. p. 37.

In all other respects, Mr Edmonstone's remarks are unexceptionably candid. The principal question seems, Whether Mr Wilson was hasty in deciding, because he could not discover the true character of lues venerea during his stay at Otaheite; that therefore it did not then, nor ever had, existed on the island? On this subject, as Mr Wilson is probably engaged in the service of his country, I shall offer a few words in our joint defence.

First, It will be admitted, that the missionaries, then, and for some time resident in Otaheite, not only asserted the prevalence of the disease among the natives, but showed Mr Wilson their cases. These, after a careful examination, he was convinced were not venereal. He examined also a number of others, which the islanders asserted were derived from the same source, and his conviction was strengthened. He next enters into an account of the diseases which he saw; endeavours to trace their probable sources; and also of the decreased population of the island; in all which he appears to me to write with equal judgment, perspicuity, and candour.

Mr Edmonstone next expresses the danger to which medical evidence would be exposed, were we to admit of Mr Wilson's conclusion. But if medical evidence were admitted with greater caution, would it not lead to a greater accuracy in the description of diseases?

"Were an intelligent medical traveller, returning from a distant country," adds Mr Edmonstone, "to relate that he had seen many labouring under small-pox, measles, hooping-cough, or other *well-known diseases*, no person, I apprehend, would be inclined to doubt the truth of the relation, merely because he had failed to describe the characteristic symptoms of these diseases." To this it may be answered, that were the subject of either of these diseases a matter of controversy, it is probable that the distinguishing characteristics would be required. Have we not heard much disagreement among well-informed practitioners, concerning some cases of small-pox which have appeared after vaccination? Is there not reason to believe, that measles are often confounded with scarlatina? And if a dispute should ever arise concerning the introduction of hooping-cough into any new society, would it not first be required, that all the diagnostic symptoms which distinguish hooping from other violent coughs, should be ascertained?

"Still less," adds Mr Edmonstone, "is there cause for scepticism, where those who lay claim to our confidence are known to have been persons of skill and veracity, selected for the express purpose of superintending the medical department of the different voyages." I conceive Mr Wilson would be very unwilling to question the skill or veracity of those gentlemen. But may we not ask, were the phenomena and laws of the venereal disease as well established in their days as when Mr Wilson visited the island? Mr Hunter, who first taught us this accurate discrimination, published his treatise several years after the world was deprived of Captain Cook. His fellow-voyagers, therefore, might not be aware of the various appearances, which, before Mr Hunter, were confounded with this *proteiform* disease, as it was too often called, even by some respectable writers.

Though Mr Hunter's work has been translated into French, yet it is probable that the obscurity of his language, even in his own tongue, is much increased in the translation. To this we may impute the very defective manner in which the medical people on the continent still write of venereal maladies. They have however the merit of describing what they see; and by this description it is impossible not to suspect that the diseases mentioned by Dr Rollin, M. de la Peyrouse's surgeon, are not venereal. In one place, we meet with "buboes, which, suppurating, leave cicatrices." * That these buboes should cicatrize without the use of the only remedy with which we can cure venereal symptoms in England, leaves a fair presumption, that such tumours or abscesses were considered venereal, merely because they occurred in suspicious parts. The other symptoms are so uncertain, that they would not, I am persuaded, be satisfactory to a well-educated English surgeon of the present day.

Mr Edmonstone afterwards remarks, that Mr Wilson would have cause to consider himself as disrespectfully treated, if any writer should doubt the existence of fever, dysentery, rheumatism, phthisis, or elephantiasis, all of which that gentleman has spoken of as existing in the island, without describing any of their symptoms. In answer to this, it may be urged, that the symptoms of the four first mentioned diseases are too well marked to require any enumeration for general purposes. Should Mr Wilson be called upon to explain himself relative to elephantiasis, we cannot doubt that he would readily do so, as far as his notes and memory would enable him. In this manner your correspondent, Mr Christie, medical superintendant-general of Ceylon, has thought it right to explain himself on elephantiasis, by referring to another author, when he wished to establish a point which he conceived might be important to his readers.*

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* La Peyrouse's Voyage, Vol. III. p. 178 of the Translation.

I hope I shall not be suspected of undervaluing Mr Edmonstone's remarks by any thing I have said. They appear to me very reasonable, and particularly useful, as they enforce the necessity of accurate discrimination.

London, *Aug.* 13, 1812.

VII.

Letter to Astley Cooper, Esq. *on the Cure of Curved Spine.*

By B. G. Burroughs, Esq. Surgeon, Clifton.

There is a practice lately introduced in scrofulous affections of the joints, more particularly of the spine, recommended by some surgeons, which is so widely different from the one recommended in your public lectures, that it would be serving the public very much to have the propriety of this practice ascertained; and I think, Sir, you will feel little hesitation in giving your opinion on it, when I assure you the interests of humanity are very much concerned in it. I have heard of patients so little out of health when they have been put on this treatment, that it has almost escaped the observation of their friends, and have afterwards heard almost uniformly of their gradually declining state. The disease, and the practice to which I allude, and to which I beg to call your attention, are briefly these—In scrofulous affections of the spine, be the degree of disease there what it may, whether curvature merely from debility of the system, or from more serious injury to the vertebræ, still, as far as I can learn, the same practice is pursued; namely, the patients are confined entirely to a horizontal posture on a mattress, placed on a machine contrived for the purpose, which they are never to quit, even for their meals, for perhaps a twelvemonth, and sometimes eighteen months or more, or as long as it is supposed that the disease will require such a position. The theory given for this treatment I have understood is, that as diseases of the spine are generally supposed to arise from weakness, that a plan which will take off the pressure of the superincumbent parts until they become stronger, will cure the present, and prevent any future deformity; but this mode of proceeding, as far as it has come within my cognizance, has been attended with great misery to the patient, and proved very unsuccessful. Indeed I think it may also be shown, from the fair exercise of the judgment, that a system which goes to the complete exclusion of air and exercise to a young subject for a disease of debility, cannot be right; and I am very much induced to believe that it may be shown to be improper in both the kinds of distortion for which it is employed, namely, in the one arising from weakness only, and in the other proceeding from destruction of the bones. With the spinal affection producing curvature, arising from weakness, and unattended with disorganisation, do not the phenomena of rachitis bear a great analogy, having its origin generally in a certain condition of the alimentary canal and mesenteric glands, and now-a-days considered as a true scrofulous disease? Now, what is the treatment here? Is it not truly the reverse of the one mentioned above? and perhaps for the same disease. The little patient in rachitis, after due attention to the alimentary canal and mesenteric glands, is not condemned to the house, to lie on its back for months, and forbid to use its limbs, but recommended dry air, exercise, and nourishment; and the more the child is allowed to run about wild, to use the language in one of your lectures, the better. The success of this treatment is well known, not to the faculty only, but to the mother of every large family; nor can I conceive how any disease, said to arise from debility, is to be cured by any other plan, or how muscles are to become red and strong without exercise. Let us next see how far the recumbent posture and no exercise will succeed, where some portion of the vertebræ has become destroyed by absorption. You remark in one of your lectures, "should a patient recover in this state of disease, an anchylosis of the spine is the consequence;" and you further remark, that perhaps the favourable termination of the complaint, in this manner, is more fairly attributed to the operations of nature, than to the efficacy of issues, caustics, &c. so much recommended in this state of disease. But what are more immediately to my purpose, are your observations on the impropriety of the use of machines in the above diseases; and in confirmation of your opinion here, you give two diagrams, illustrative of two circumstances, the one a curvature of the spine cured by anchylosis, the other, the condition of the spine where such an effect has been prevented by the use of instruments. The following is an humble imitation of the diagrams submitted to your pupils in your public lectures.

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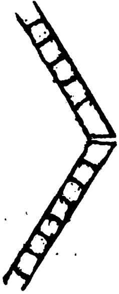
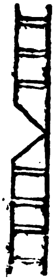
* See Ed. Med. Journal, Vol. V. p. 500, note.



Cure of the spine by anchylosis.



The cure of the spine interrupted by wearing instruments, and the union of bones prevented.

As, therefore, our only hope of cure in this description of disease depends on an anchylosis of the vertebræ, in which case the curve will be outward, as shown above, and which, as you state, will be prevented when instruments are used by pressing on the curve, and forcing the, otherwise, uniting points of the vertebræ from each other. Now, Sir, I wish to know whether the system of the reumbent posture, as before stated, may not be improper in this kind of disease also, as well as in the former? for it appears very likely to me, by keeping the back constantly extended, both to prevent what you have called here the necessary curvature, and the union of the bones, without which, agreeably to your ideas, there can be no hope of saving the patient.

Your opinion of the practice which I have here submitted to your consideration, is solicited with more than usual earnestness; for it is really melancholy to see a poor young creature stretched constantly, for many months together, without ever being suffered to rise, and that too at a period of life when a constant state of inaction must prove to be the greatest affliction; but, on the other hand, if these diseases do really require such treatment, then, of course, the unfortunate victims to them must submit. But as I have my doubts of the propriety of the treatment under many circumstances of the diseases for which it is at present used, and more particularly to the extent to which it is carried under any form of these complaints, though in some one of them, perhaps, under certain limitations, it might be more advantageous, I thought I could not satisfy my own feelings, nor serve the community and profession more essentially, than by eliciting your opinion upon a practice so important, which is daily carried into execution, and is, therefore, either doing much good, or proving to be one of those unfortunate experiments in medical science which numbers will have cause to deplore.

Mall, Clifton, July 1. 1812.

VIII.

Observations on the Yellow-Fever of New York in 1803. By ALEXANDER RAMSAY, M. D. Lecturer on Anatomy and Surgery, Edinburgh.

WHEN I visited New York in 1803, I found physicians undecided respecting the nature of yellow-fever in every respect, as well as the seat of black vomit; and the opinions of Dr Bancroft, on the authority of the ingenious Dr Physic of Philadelphia, noticed in your Journal of July last, pages 326 and 327, seem so different from those cases which came under my inspection in 1803, that I think it my duty to lay before your readers the appearances of that year.

The malady seemed to be viewed as of a highly malign type; as it was reckoned (from the best information I could come at) that half of the population fled from the city. Broad-Way seemed for some time the only street entirely open; many were partially, or much deserted; and places of worship were shut up. The symptoms were such as authors have so often correctly stated, that I need not enumerate them. Perhaps some European readers may not have heard of those (vulgarly named walking-cases.) The person appears yellow, is listless, often seemingly in a state of fatuity. Sometimes you cannot attract his attention by addressing yourself to him. He walks about, without design, from place to place, and, in a moment, occasionally drops lifeless to the ground, without any previous symptom to warn attendants. I continued for some time in the hospital of Bellevue, that I might notice the symptoms, treatment, and appearances after death. I selected cases of those who fell in the black vomit and stool, as well as the bloody vomit and stool. They were as follow.

This year, in the first stage, the liver seemed always the highly diseased organ. The state of the stomach partook of the morbid type, which in general characterizes this viscus, not only in fever of a common kind, (where black vomit is not expected), but many other maladies. The inflammation was, in some cases, much less than could be expected, and only such as might be looked for, where so much irritation was excited by the regurgitation of the black matter from the duodenum. The same matter as filled the biliary ducts in the substance of the liver, was likewise traced in the gall-bladder, stomach, duodenum, and intestinal tube. The continual flow of this black matter through the intestinal canal, seemed to occasion great inflammation in the viscera, with often abrasions of the inner coat. I am induced to overlook the spasmodic contractions of the intestines, as they often are affections by no means peculiar to this more than other diseases. I find, from several observations, that what may be viewed as serious cases of intus-susceptio, are often effects arising *in articulo mortis*, in all maladies.

When black vomit and stool failed to yield to remedies, the presages of bloody vomit and stool occasionally made their appearance, viz. hæmorrhage of the gums, eyelids, and nostrils; this was succeeded by the bloody vomit and stool. This stage partly accords with Dr Physic's observations, being entirely a rupture of the gastric and mesenteric arteries, attended with abrasions of the villous coat of the stomach in particular. This, however, seemed very different from the matter of black vomit. So far as my observations went, the bloody stage was always preceded by the black stage: this, however, might be assumed in the cases mentioned by Dr Physic, without the intervention of this black stage, as was the case in the typhus of the interior, which I shall lay before your readers on some future occasion. In one of the worst cases, the stomach was contracted to the diameter commonly assumed by the transverse colon, which some, *a priori*, would not expect in a state of system so completely exhausted; but we ought to recollect, that the most violent actions, as convulsions, (unfortunately ascribed to morbid strength), are connected with the highest states of debility, as we see in the moments of death.

Vapour-bath was our most effectual means of allaying the continual and teazing irritation of the stomach. As water, as an external application, in a warm and cold state, in this and other maladies, seems of the highest importance, I shall take a future opportunity of offering a few thoughts on these topics.

The diseased state of the lymphatics (which seems always connected with debility), which I discovered and described when a pupil of the celebrated Mr Cruickshanks of London, was detected in several of those subjects who died of yellow-fever. This consists in the lymphatics losing their transparency and elasticity, and assuming an opake and inelastic state. In proportion as this opacity increases, so does their dilatation and thickening of the coats: the utility of the valves ceases; congestion takes place. When such vessels suffer compression, or when they cease at any time to be filled with their contents, the highly active state of the vasa propria occasions accretion of the inner coat, and obliteration of the cavity, by which the regular progress of the lymph is prevented. This affection of the lymphatics seems most frequent in the lungs, and not unfrequently in the iliac plexus. It seems induced by any and all debilitating causes, especially indiscreet mercurial applications; and I attribute those I met with in America to this cause, as mercury is the incessant resort of practitioners in the interior of that country. I believe much harm is occasioned to the general constitution by the indiscriminate use of this medicine, in the northern states in particular; and I was pleased (and indeed honoured) to find, that the opinions of the highly respectable Dr Saunders of London, corresponded with the notions I had given (in the Colleges of New York, &c.) in his late judicious remarks on this very subject. This affection of the lymphatic system (since I have divulged it to practitioners) seems very prevalent in all parts of the human body. One of the first practitioners in midwifery in London, informed me, that for many years he had discovered the appearances mentioned in diseased mammæ, but till then was at a loss to what cause to ascribe it. In indolent tumours, this seems to have been traced as the foundation of the evil. *

The notion of the endemic quality of yellow-fever, seems to rest on perhaps negative grounds. There was no disease in Broad-Way, (a wide well-built street), possessed by wealthy people; hence a few inhabitants in a large given space. No physician, or nurse, not even strangers, under the influence of fear, who visited me in the dissecting-room at the hospital, three miles from town, were attacked with fever. The notion of dilution can scarcely be admitted, as I not only sat by the bed, three days and nights, of a patient in one of the worst cases (who recovered), and was continually in the nearest contact with all the patients which nursing or attendance could occasion, yet I had no attack of fever. No case, however virulent, taken from the infected streets to the country, ever conveyed the malady to attendants. Old people, children, (even feeble people I think), escaped fever. The French people, though long resident, and the Negro, lived in diseased streets with impunity. The disease raged in narrow streets near the wharfs, where numbers of ill-fed and irregular people were crowded together. The robust chiefly were sufferers.

10, *Infirmary Street, Edinburgh.*

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* Does this state of the absorbents account for the large thoracic duct given by Mr Cruickshanks in his work? Dropsy seems connected occasionally with the morbid appearances mentioned.

IX.

Case of Pseudo-Syphilis, with Remarks. By WILLIAM STEPHENSON CLARK, Surgeon, York, Member of the Royal College of Surgeons, and late Resident-Surgeon of the Lock-Hospital, London.

THE object of the present paper, is not to present to the public a specimen of any thing novel, but to call the attention of the profession to a very important part of practice, viz. the diseases resembling syphilis. The parts of generation are subjected, alike with other parts of the human body, to attacks of inflammation, ulceration, &c. which have no connexion whatever with the syphilitic poison. Long before ever the venereal disease appeared in the world, cases are related, the symptoms of which nearly accorded with those presenting themselves in lues venerea; and we are informed that the parts of generation were subject to discharges, ulcerations, warts, phymosis, &c. all of which possessed nothing of the true syphilitic character, and recovered without the use of mercury. Upon this subject some additional valuable information has been lately given to the world, particularly by those two eminent practitioners, Mr Pearson and Mr Abernethy; and happy would it be for mankind, if, in the general treatment of this disease, a due and cautious investigation of its progress, character, and appearances, was first made, before its treatment was determined upon. We should not then be witness to the sad number of mutilated victims, who either have fallen a sacrifice to the daring attempts of an ignorant empiricism, or to the rash administration of the mineral specific; for a multitude of indisputable proofs might be adduced, that ignorance and error often render mercury one of the most precarious and mischievous medicines in use. Even under the most cautious administration of that medicine, there are certain peculiarities of constitution, where its irritating qualities predominate over its medical ones, and where the mode of its operation seems rather calculated to distress the patient, and to injure his health, than to remove the disease for which it is exhibited; nay, very often to produce symptoms so precisely similar to those it is intended to remove, that, was it not impossible for a fresh order of venereal symptoms to arise while the system was *powerfully* under the *influence* of a *specific* for that disease, it would be concluded that a rapid increase of all the venereal symptoms was progressively taking place. This would imply something like a palpable contradiction; that the antidote should be operating with efficacy to cure the venereal symptom for which it was directed; while, at the same time, the venereal virus was proceeding to contaminate new parts, and excite new appearances. It may well, therefore, be doubted, whether more sacrifices are not annually made to the injudicious administration of mercury, than to all the combined effects of the morbiferous poison. The following case will, in an imperfect degree, tend to illustrate the subject in question, and, at the same time, show the great necessity of cautiously abstaining from pronouncing too positive an opinion upon the nature of a suspicious case.

I was consulted some time ago by a person on account of an excoriation on the side of the prepuce. The history of the case was this:—His health had been for some time rather impaired: In the early part of January, he had a connexion. From this, however, no visible morbid symptom arose, till some weeks after, when a slight irritation was felt upon the prepuce. This was soon followed by a sore, extending from the middle of the left side of the prepuce, to the frænum, and succeeded by an enlargement of the glands in each groin. Upon viewing accurately the sore, the surface of which exhibited little of the characteristic marks of a true venereal chancre, and particularly attending to the *progress* of the case, and the *length* of *time* that had elapsed between the connexion and the appearance of the sore, I pronounced it not to be venereal, and directed the most simple applications to be made use of, as a saturnine lotion, or a poultice of milk and bread. This plan was tried for some time, when it appearing to make no alteration, at least for the better, I recommended a mild solution of calomel in lime-water, which in a short time completely healed it. Nothing now whatever appeared till early in May, when I was again consulted by the same person, on account of an uneasiness in his throat. Upon examining the tonsils, I distinctly perceived a slight ulceration on each, accompanied with a degree of erysipelatous redness. The ulcerations kept gradually, but superficially, spreading, for about a week, when an eruption of purple spots took place upon the skin, at the same time the inguinal glands continuing greatly enlarged. Confident, however, partly from the appearance of the primary sore, but more particularly from the *history* of its *progress*, that it was not venereal, I recommended the use of mild detergent gargles, and a moderate quantity of red port daily. From this time an uniform increase of the symptoms took place; the eruptions became more vivid, and the ulcerations of the tonsils, although extensive and sloughy, yet did not appear to penetrate deep, or to assume the thickened ragged edge. The case now became of considerable importance, and had arrived at a crisis which rendered it necessary for some additional steps to be pursued. I accordingly recommended the warm bath, which was to be repeated as often as the patient's strength would permit, and advised a plentiful use of the Peruvian bark, together with the application of the oxymel æruginis to the tonsils. From this period to the beginning of July, a slow and almost uninterrupted progress was made. The ulcerations had extended from the tonsils up the inferior edge of the velamen palatinum, at which time the tonsils assumed a disposition to heal, but again quickly ulcerated. No benefit having at all resulted from the means hitherto made use of, and his health beginning to suffer, I determined that he should repair into the country. The symptoms, which had hitherto been characterized by a very slow progress, now assumed a much more rapid increase; the ulcerations spread on one side of the velamen palatinum, crossed the uvula, and completely affected the other; and the copper-coloured eruptions became larger and more universally diffused. The conviction, however, of the peculiar character of the primary symptoms still supported me in the belief, that, although a most obstinate poison was secreted and thrown into the system, yet, that it was essentially different in its true specific properties from the venereal poison. In this opinion I had shortly the gratification of being confirmed; for a fortnight had not elapsed before a rapid and total disappearance of the eruptions took place:—this is a character which most decidedly marks the spurious syphilis from the genuine, as will be shortly observed at the conclusion of the case. In a few days the eruptions again appeared, and continued for the space of three weeks, at which time the progress of the poison appeared to have arrived at its acme. I now thought it right to try the effects of the sarsaparilla, and, for this purpose, directed half a pint of the compound decoction of sarsaparilla to be taken three times a-day, combining with each dose from five to eight drops of the muriate of barytes. From this period the ulcerations in the throat began to subside, their sloughy surface to look more healthy and to granulate, and the eruptions gradually to disappear, except some slight fluctuations which have since taken place, sometimes all the symptoms being nearly exhausted, and then appearing again to resume a fresh morbid action, till the present time, when they have completely disappeared. Thus has a most interesting case, which lasted, with very ambiguous symptoms, from the beginning of May to the latter end of September, finally terminated, *without one single particle of mercury,* and in a constitution where probably a complete course of that mineral would have proved fatal.

Remarks.

It has been justly lamented by accurate and eminent practitioners, that no criterion could be formed, at least by appearance, of the difference between the true and spurious venereal sore. This, I confess, in numerous cases, is a difficult, and almost impossible thing; and whoever solely trusts to the appearance of either a primary or secondary affection, without being guided by the history of the case, will be subject to perpetual error. The above case is a striking fact elucidating this proposition; for I am convinced, that, let the sagacity of that practitioner have been what it would, his judgment must have been most egregiously deceived, had he depended upon the appearances alone. The *true* venereal poison, as far as the experience of many centuries confirm, is a virus, which, when once received into the constitution, is unable to be expelled by any power it possesses; and, to quote the words of Mr Pearson, "that, when once it is received into the system, it will go progressively forward to the destruction of the animal, until checked by the use of mercury." This, therefore, forms the grand essential difference between the two poisons, that the former progressively goes forward unless checked by medicine; the latter fluctuates, and will at length exhaust itself. But, besides this distinction of its principle, a minute investigator, who has an opportunity of seeing the primary affection, will still further discriminate from the *character*, and more particularly from the account of the *progress of the case.* This was one of the circumstances that appeared to decide in the present instance: For, 1st, to imagine that a true venereal sore could take place several weeks after exposure, and particularly where a due attention had been paid to cleanliness, although much doubt is entertained by many upon this subject, and which I candidly confess my own inability to decide upon, yet appears to militate against what we know of the progress of the venereal disease: 2dly, The appearance of the sore did not correspond with the venereal character; its base was not sloughy or deep, nor did it assume a thickened ragged edge: 3dly, The glands in the groin, which had arrived at a very considerable enlargement, as soon as the sore was healed ceased to increase; and, although it is by no means necessary that every venereal enlarged gland should suppurate, yet it is a probability of their being of that spurious nature, when they gradually diminish without the use of mercury: And, lastly, the superficial ravages which the secondary ulcerations made, the regular edge, and the fluctuating appearance of the spots, were criteria which, I should think, would induce the most sceptical practitioner to pause before he pronounced his mercurial anathema upon the unfortunate patient.

York, August 17th, 1812.

X.

Further Observations on Painful Subcutaneous Tubercle. By WILLIAM WOOD, Esq. Fellow of the Royal College of Surgeons, Edinburgh.

IN a communication published in the last Number of this Journal, I gave an account, which had been previously read at the Chirurgical Society of Edinburgh, of a particular species of tumor, under the name of *Painful Subcutaneous Tubercle;* a disease to which my attention was particularly attracted, by the circumstance of my having seen four cases of it in the course of the preceding twelve months. As it did not appear to me to have met with that attention to which I conceived it entitled, both from the singularity of its symptoms, and from the severe suffering to which it gives rise, I collected all the information which I could procure, with regard to it; and, by the assistance of some of my medical friends, I was enabled to give a detailed history of eight cases, from which my account of the disease was drawn up. These eight cases contained all the distinct information of which I was then in possession. I have since been favoured, by my friend Dr Brown, with an accurate history of the disease, as it occurred in a gentleman, from whose arm he extirpated a tubercle, of the size of an orange-seed, with complete success: and my friend Mr Newbigging has kindly afforded me an opportunity of seeing the complaint in the fore-arm of a female, at present under his care in private practice. As these two cases, however, differ in no respect from those already published, I think it unnecessary to enter here into any detailed account of them.

Previously to my former communication having been published, I had not been successful in discovering any account of this singular species of tumor in the writings of medical authors; it has since that time, however, been pointed out to me, that, although there is no very accurate or detailed general history of the disease, it has been mentioned, and individual cases of it have been described, by several medical writers. In the present communication, therefore, I shall take the liberty of giving a condensed account of all the information which I have been able to collect from authors on the subject.

The first mention of the disease seems to have been made by Cheselden, in one of the later editions of his anatomy, to which my attention was directed by Mr Allan. After having described the structure of the cutis or true skin, he says, "Immediately under the skin of the shin-bone, I have twice seen little tumors, less than a pea, round, and exceeding hard, and so painful, that both cases were judged to be cancerous; they were cured by extirpating the tumor: But what was more extraordinary, was a tumor of this kind, under the skin of the buttock, small as a pin's head, yet so painful that the least touch was insupportable, and the skin for half an inch round was emaciated; this too I extirpated, with so much of the skin as was emaciated, and some fat. The patient, who before the operation, could not endure to set his leg to the ground, nor turn in his bed without exquisite pain, grew immediately easy, walked to his bed without any complaint, and was soon cured." (Cheselden's Anatomy, 10th edition, page 136.) It appears from this quotation, that Cheselden had thrice met with this disease: He does not mention whether, in the two first cases, the patients were male or female; in the last, the disease seems to have occurred in a man, who suffered more severely than any of the patients whom I have had an opportunity of seeing, although the tubercle did not exceed the size of a pin's head. In all the three cases, a cure was accomplished by the extirpation of the little tumor.

Camper, the next author by whom the disease is taken notice of, in his work, entitled, Demonstrationum Anatomico-Pathologicarum, liber primus, after describing the nerves of the arm, says, "Non raro in nervis cutaneis tubercula parva ac dura observantur, quæ vera ganglia sunt, pisi magnitudinem licet non excedant; dies tamen noctesque acutissimis lancinantibus doloribus ægros torquent: externis remediis non cedunt, scalpello igitur ea attingere oportet. Franequeræ ex cubito feminæ tale, plaga facta, sustuli, quod ramo musculo-cutanei nervi adhærebat: post operationem optime se habuit. In subcutaneis nervis frequenter esse videntur. Amstelædami simile ganglium genu mulieris occupans, eodem modo sanari curavi. In viris plus semel ea vidi: albicant intus, cartilagineæ duritiæ sunt, renitentia, et intra nervorum tunicas sedem habent."—Lib. I. p. 11.

In this paragraph, Camper describes a species of tubercle not larger than a pea, as giving rise to very severe pain, and requiring extirpation to produce a cure. He mentions his having twice met with the disease in females; and adds, that he has more than once seen it in men. He informs us also, that the tubercles are real ganglia, and have their seat within the coats of the nerves. It seems to me doubtful, whether, by the term ganglion, as here applied, he means to say, that the complaint arises from a diseased state of one of these little swellings met with in different parts of the healthy body, at the junction of one nerve with another, properly termed ganglia; or that it is formed by a morbid enlargement of some portion of a nerve. Nor does it appear, whether he was enabled, by accurate examination of the structure of the tubercles, to ascertain that they really are situated within the nervous coats.

In addition to the information contained in these extracts, from Cheselden and Camper, my friend Dr Davidson has been so kind as to favour me with a reference to two papers; one published in the Memoirs of the Medical Society of London, the other in the Medical Facts and Observations, in which are detailed some cases of this disease.—Dr Bisset, in the Third Volume of the Memoirs of the Medical Society of London, gives a minute and distinct account of the symptoms and progress of what he terms—" An extraordinary irritable sympathetic tumor."

This tumor, Dr Bisset informs us, appeared originally in the form of a small pimple, of the colour of the skin, on the outside of the left leg of a girl of 13 years of age; in and about which pimple she usually had some little uneasiness immediately before a great fall of rain or snow, and in very windy weather. The tumor remained in this state till soon after she first conceived, when it increased to the size of a large filbert, and became in the highest degree irritable. The patient now began to be affected with a violent periodical pain in it, which recurred twice or three times, and sometimes oftener, in 24 hours, at unequal and uncertain intervals; the duration of each paroxysm often varying a little, and never exceeding one hour. The pain darted, when most violent, to the origin of the tibialis anticus, and from thence often upwards to the spine of the ilium. The pain was instantly excited also, during the pregnant state, by the tumor being rudely touched with a finger, or with the skirts of her petticoat; but these accidental paroxysms were always of short duration. As soon as this patient was delivered of her first child, the little tumor became at once exempt from any uncommon irritability, and the periodical paroxysms of acute pain quite ceased; and in this state it remained during 13 months, except that some little uneasiness was perceptible before the falling of much rain or snow. In the end of that period, the patient having again conceived, the tumor acquired its former irritability, and she was affected precisely in the same manner as she had been during her first pregnancy. At this period, an attempt was made, by a surgeon, to cure the disease, by making a crucial incision into the tumor, to promote suppuration, and to destroy its irritability; but as this failed, excision was had recourse to, which proved effectual. Immediately after her third conception, however, the little tumor was reproduced, but did not increase quite to its former size, and the paroxysms of pain commenced and returned two or three times daily, as during the former pregnancy. When the third child was born, the tumor became at once perfectly indolent, as it had formerly done. The patient having again conceived, the irritability of the little tumor commenced as usual, and the periodical pain became more violent than ever. At this time Dr Bisset was consulted, who directed the application of the caust. commune fort., which produced its effect in 20 minutes. After the separation of the eschar, some small remains of the tumor were destroyed by caustic. By this means, an effectual cure was accomplished; as, during two successive pregnancies, there was not the least return of the disease.—(Memoirs of the Medical Society of London, Vol. III. page 58.)

This very singular and interesting case, of which I have used the freedom of giving a very full account, nearly in Dr Bisset's own words, appears to me to have been decidedly of the same nature with that described by Cheselden and Camper; and it agrees in all its symptoms with some of the cases published in my last communication; it differs, however, from all the cases which I have yet met with, in the very remarkable connexion which existed between the tubercle and the pregnant state. I think it not at all improbable, that a perfect cure might have been effected, if extirpation by the knife had been originally performed; for it is by no means unlikely, that the return of the disease was owing to some portion of the morbid part having been allowed to remain when extirpation was had recourse to, from the state the parts were then in, in consequence of the crucial incision and subsequent suppuration.

In the 6th Volume of the Medical Facts and Observations, there is a letter from Mr John Pearson of the Lock Hospital, to Dr Simmons, containing "An account of some extraordinary symptoms, which were apparently connected with certain morbid alterations about the veins and nerves." The first case detailed in this letter appears to have been a case of painful subcutaneous tubercle; the little tumor was situated in the course of the saphena major vein, about six inches above the ancle-joint, of a married woman of 51 years of age. It produced exactly the same symptoms with those which existed in the cases formerly published. Mr Pearson mentions, that the patient observed that "the severity of her sufferings was invariably increased during the periods of menstruation and of pregnancy." Her disease, however, continued with undiminished severity after she had ceased to bear children. Having refused to submit to extirpation of the tubercle, which had been urged by Mr Pearson, various methods of treatment were employed, but ineffectually, in the course of 18 years that the disease was present; but, at the end of that time, in consequence of her having heard of the success which had attended the application of caustic in Dr Bisset's case, she submitted to have the diseased part removed by the same application. The caustic was employed for 20 minutes, when the eschar was completely formed, and from that time she never experienced the return of a single paroxysm of pain. The eschar exfoliated in about 12 days, and in the course of about seven weeks the sore was perfectly healed.

Having given a detailed history of this case, Mr Pearson endeavours to account for the symptoms, on the idea that a portion of a vein and of a nerve being included within the indurated part, which could not easily be distended, whenever the vein became preternaturally turgid, the nerve was compressed between its parietes and the internal surface of the induration, and that consequently the symptoms were connected with this state of the part. He observes, that the paroxysms of pain were excited by every thing that accelerated, or otherwise disturbed the circulation of the blood, whether applied to the induration, or affecting the general system, as all strong exertions of the muscles, external impulse, or mental commotion; and he adds, that it is highly probable, that the portion of vein which passed through the tumor, was unusually distended with blood at the time of the paroxysm; for, upon these occasions, the morbid surface became redder than common, and the tumor was sensibly elevated.

The fact, on which he forms this theoretical explanation, of a portion of a vein and of a nerve being "completely included within the tumor," he thinks proved, by his having found, after the exfoliation of the eschar, a portion of the vena saphena major, and of that branch of the crural nerve which accompanies it, hanging down at the superior part of the sore; for he allows, that the indurated part having been destroyed by a caustic, it was not in his power to examine its internal structure, so as to discover the true nature of the morbid alteration. Now the appearance of a portion of vein and of nerve in the sore, after the exfoliation, does not appear to me conclusive evidence that these were actually "included completely within the tumor;" as exactly the same appearances would have presented themselves, if the vein and nerve had been merely situated in the neighbourhood of the tumor, to one side or other of it, provided they were near enough to be within reach of the caustic. On the whole, this theoretical speculation appears to me more remarkable for its ingenuity than for its accuracy, as, neither from the situation of the tubercles, nor from the appearances met with in examining them after they have been removed from the body, have I had the least reason to suspect any such venous connexion. That the disease is intimately connected with the nervous system, I think there can be little doubt, from its symptoms; but I conceive that more frequent and more accurate examinations of the structure of the morbid part are still wanting, to enable us to ascertain in what way the connexion is formed. In the same letter, Mr Pearson mentions his having seen another case very much resembling that above described. The tubercle was situated at the posterior part of the leg of a female, near the beginning of the tendo-Achillis. In this case Mr Pearson suspects that the tumor may be connected with the vena saphena minor, and that consequently it may include or compress a small branch of the sciatic nerve; but, as he could not render the cutaneous veins of the leg turgid by moderate pressure, its exact situation was not ascertained.

I have now communicated all the information which I have yet been able to collect with regard to this singular affection, which, from the number of cases now on record, I think we are entitled to consider as a distinct species of tumor, at least until its real nature be ascertained; and I should be disposed to retain the name which I have ventured to give it, of *Painful Subcutaneous Tubercle*, as being expressive of the seat of the disease, and of its principal symptom, while it does not involve any theoretical opinion as to its true nature. It would appear from the cases published, that it is a disease to which both sexes are liable, but that it occurs much more frequently in females than in males;—of 18 cases which I have been able to collect, 14 were met with in females, two in males, and in two cases the sex of the patient is not mentioned.

The disease luckily admits of a safe and simple remedy, viz. extirpation by the knife, which ought, in all cases, to be preferred to the application of caustic, as being a much less painful operation, and procuring a much more speedy cure. By the account of both Dr Bisset and Mr Pearson, the application of caustic to the tubercle produces, for a good many minutes, the most excruciating torture; and, in Mr Pearson's case, the sore was not completely healed till seven weeks after the application of the caustic.

Hanover Street, August 1812.

XI.

A Case of Purpura Hæmorrhagia. By THOMAS JEFFREYS, M.D. One of the Physicians of the Dispensary and Fever-Hospital, Liverpool.

MARCH 17, 1812.—A captain of a Swedish merchantman, aged 40, of a robust habit, rather of an irritable temper, and much inured to hardship, applied to me for an effusion of spots of a logwood colour, profusely sprinkled upon his arms, thighs, and some on his body, differing in size from that of a pin-head to a pea; the same also appeared on his lips, and within his mouth, one of which was as large as a horse-bean, elevated and spongy, but free from pain: His gums occasionally bleed; no fever; his appetite and spirits are good: He has been the subject of these symptoms, more or less, for several weeks, and has used different local remedies by the advice of a physician, who, with himself, supposed them connected with a syphilitic taint; he has repeatedly had epistaxis to a great extent, and it has annoyed him in travelling from Hull to this town.

The case at first appeared so trivial, that I had little doubt of its yielding to nitric acid, as I had often experienced; and I directed two drachms to be taken in eight ounces of decoction of bark, within that and the following day. On the 19th, he called to say he was much better. The same evening, however, I was requested to see him, when I found him complaining of headach, drowsiness, slight chilliness, anorexia, and restless anxiety. Pulse 100, and full; tongue clean; belly bound.

The difficulty of getting him bled, together with my own doubts of its propriety, easily reconciled me to postpone it for the night; and I was content to order five grains of the submuriate of mercury, and five of antimonial powder, in a pill, to be taken immediately, with a brisk saline cathartic, as early as possible in the morning.

20th.—Physic only operated once; and about five o'clock this morning, he was seized with epistaxis, which has continued without intermission for five hours; during which he cannot have lost less than two pounds of blood, which has rendered him weak, pale, and sallow. Pulse 100, not so full. He was immediately bled to ℥xvj. which, with the aid of refrigerants, soon stopt the hæmorrhage; and I now learnt he had been much in the habit of venesection, consequently had applied to an apothecary a few days previously, who had bled him largely, with relief.

℞ Magnesiæ sulphat. ℥i.
Infus. rosæ f℥viij. M. capiat. cochl. iij. magna 3tia quaq. hora.

In the evening, he was better; no epistaxis, and no stool.

℞ Pulv. antimonial. gr. vi.
Pulv. folior. digital. gr. i.
Hydrarg. submuriat. gr. iij.
Syrup. q. s. ft. pilulæ horâ decubitûs sumendæ.

21st.—Only four trifling stools; some return of the headach, succeeded by epistaxis, which vinegar and water externally applied soon stopped. Tongue loaded; pulse 100, not full. The livid spots on his thighs are very painful; those of his mouth and arms are less evident. The orifice where he was first bled threatens a formidable inflammation of the same livid colour, extending several inches. The blood drawn yesterday shows an inflammatory buff on its surface, at least an inch and a half in thickness, firm, and yellow, far exceeding any thing I ever saw in the most acute case of pneumonia or rheumatism, but not at all cupped; in fact, the whole serum looks like a corrupted coat of coagulable lymph: the crassamentum appeared in a very dissolved state, of nearly a black colour, and much less in relative quantity than usual. The bleeding reduced his pulse, and evidently relieved him, but was followed by the most alarming syncope and convulsions. Petechiæ no better; ecchymosis and vibices appear on his thighs, and the inflammation of his arm extends.

Iterum mittatur sanguis è brachio ad ℥xiv.

℞ Pulv. antimon. gr. xviij.
Pulv. fol. digital. gr. vi.
Confect. rosæ canin. q. s. ft. pil. vi.
Capiat. i. 4ta. quaq. hora, è cochl. iij. magnis mixturæ sequentis.

℞ Liquor. ammon. acetat. f℥iij.
Syrup. althææ f℥i.
Aq. menth. virid. f℥iv. M.

22d.—Is manifestly better, as evinced by the pulse being 90, and not so full; ecchymosis paler; belly open, although the tongue is still loaded with a yellowish-white fur. Cont. medic.

23d.—His medicines neither nauseate nor act upon the skin; some vertigo, and epistaxis, but of inconsiderable extent and duration; vibices on the thighs very painful, and pit on pressure, though of paler colour. Inflammation of his arm is suppurating. Pulse 90, and full. Craves much for his usual diet of salt-beef.

Admoveantur hirudines sex, femori dextr. et duæ sinist.
Applicetur etiam cataplasma com. brachio.
Contin. mistura et pilulæ.
℞ Infus. sennæ f℥iijss.
Tinct. sennæ, Tinct. jalap. āā f℥ij.
Potass. tartarisat ℥ss. M. Capiat mane diluculo dimidiam, et rept. 4tis horis, nisi prius plene responderit alvus.

24th.—Pain and swelling of his thighs greatly relieved, and pus is freely discharged from the orifice of bleeding in his arm; complains of rigors, and no effect from the physic; epistaxis returned, and in an hour he lost about half a pint of blood; an erythema covers one side of his nose; pulse 90, rather full; tongue nearly natural.

℞ Magnes. sulphat. ℥i.
Infus sennæ f℥vij.
Pulv. rad. jalap. ʒij.
Tinct. sennæ fʒi. M. ft. mistura de qua sumantur cochl. iij. magnæ 3tia quaq. hora donec soluta fuerit alvus. Iterum fiat V. S. ad ℥xij.

25th.—The mixture was nearly all taken before it operated briskly; no rigors or epistaxis; erythema of the nose extending; vibices on the thigh swelled and painful; pulse 80; feels weak, but inclined for food, and broth is allowed. The blood drawn yesterday exhibits precisely the same appearance as before described.

Cont. mistur. liq. ammon. acet. et pil. antim. et digit. Capiat mistur. purgan. cras mane, donec purgatur alvus. Imponantur cataplasmæ liquor. plumbi acetat. madidæ femoribus, et brachio.

26th.—Was purged briskly this morning, and a fluctuation is felt in both thighs, although obscure and deep, each being greatly increased in size; the skin is still very livid, and inflamed to the extent of several inches; inflamed nose no better; tongue loaded and dry; some thirst; skin cool; pulse 80, and still throbbing.

Protinus fiat V. S. ad ℥xiv. Pulse afterwards 72, and followed, as usual, by syncope and convulsions; the blood appears as before. Contin. pilul. et cataplasmæ.

27th.—Erythema of the nose gone; tumor of the right thigh soft and fluctuating, that of the left slightly so; tongue clean; no thirst; some appetite; belly regular; pulse 84 and full.

Contin. mistur. et pilulæ. Rept. mist. purg. cras mane ad 3tiam vicem. Apply simple poultices to the thighs.

28th.—Thighs as yesterday; pulse 90. Fiat V. S. ad ℥xiv. pulse afterwards 72. Omittantur mistura et pilulæ.

℞ Liquor ammon. acet. f℥iij.
Tinct. opii gutt. gtt. xl.
Liquor antim. tart. fʒiij.
Aq. menth, virid. f℥ivss. M. Capiat cochl. iij. magna 4ta qq. hora.

29th.—Abscesses suppurating; that of the right thigh much increased in size and softness; that of the left less so in proportion; pulse 100; tongue white; belly regular. Cont. medic.

The state of the tongue and pulse, being supposed to be connected with the formation of matter, either from irritation or absorption, or both, bleeding was deferred at this visit.

30th.—Had much vertigo and delirium in the night, and was found out of bed on the floor this morning, although he had only taken one dose of his mixture; pulse 90; tongue clean.

Both abscesses were opened this day, and discharged freely well digested pus, accompanied by a profuse hæmorrhage to the extent of ℥viij.; stopped only by syncope, and was with difficulty afterwards suppressed by compresses made wet with refrigerants and pressure by bandage; in fact, such was the tenuity of the blood, and tendency to hæmorrhage, that, I am convinced, the slightest puncture, either with a lancet or needle, would have been followed by a continued stream of blood.

Capiat pulv. alumin. et pulv. g. kino āā ℈i. in quovis crasso, et cochl. iij. magnis misturæ sequent.

℞ Decoct. cinchon. f℥v.
Liquor. ammon. acetat. f℥iij. M.

31st.—The hæmorrhage did not return; he had a good night and is better, although his pulse is still 110; tongue loaded, and belly bound. Omitt. mist. et pulveres. Capiat mistur. purgan. f℥iss. 4tis horis donec alvus exoneretur.

April 1st.—Mixture operated well; complains of weakness; pulse 84, rather full; tongue loaded and rough; some delirium; little or no discharge from the abscess of the right thigh, and that of the left quite healed up, but remains swelled and hard. Repet. mistur. cinchonæ et liquor amm. acet.

2d.—Slight epistaxis, but which was soon stopped by refrigerants to the nose. Cont. mist.

3d.—No material change, except that of his again requiring the purging mixture.

4th.—Right thigh very painful, swelled, and inflamed round the orifice, which is filled with a dark-coloured fungus, discharging a grumous ichor: pulse 100; much throbbing; headach excited and increased by the slightest exertion; belly still bound.

Rept. mistura purgans ut antea. Apply a saturnine poultice to the thigh.

5th.—On removing the poultice, the discharge had a gangrenous fetor, and the orifice was much distended by a puffy or bladder-like fungus, which being slightly punctured, discharged a bloody ichor for several hours, with relief to the pain; pulse 110, smaller and of an irritable feel.

Capiat pulv. cinchonæ loco misturæ. Continue the poultices.

6th.—Fetid discharge very profuse but less offensive, and the fungus is separating; pulse 96; tongue clean. I now find he omitted his bark mixture for two days previous to the gangrenous appearance of the thigh.

Cap. pulv. cinchonæ ex mistura salina commun. cras mane.
Repet. mistur. purgans more solito.

7th.—A slough as large as a walnut came away with the poultice this morning, and healthy granulations appear sprouting below; appetite better; pulse 98; tongue rather foul; is weak and fretful, and his belly is still costive.

Repet. mistur. purgans. Capiat etiam pulv. cinchon. ex lacte. From this period until the 24th of April he continued to recover, by taking vegetable tonics, and occasional cathartics, when he was again attacked with headach, palpitation of the heart, and internal piles, for which a seton was inserted in the back of his neck, digitalis given to a considerable extent, and gentle laxatives, without any apparent good effect, until the 29th. The pulse was now 110, strong and full; he was again bled to ℥xiv. which had precisely the same appearance as has been stated at the height of his disease;—if there is any difference, it is in the coat of buffy coagulated lymph being thicker, and the coagulum less and darker. Countenance still sallow, and often mistaken for jaundice by his acquaintance; is nervous and weak, but walks out daily. I directed him to take the tinct. muriat. ferri, and his seton was kept open until the 9th of May, under the direction of Mr Thomas; and, although I am not satisfied that the latter was of any material advantage, we considered him convalescent. Such are the facts relative to this case, which to me were both novel and interesting; and although the treatment and termination has proved successful, I am aware that a doubt might exist, whether it may not be considered as a case of scorbutus petechialis rather than purpura.—Be this, however, as it may, I am not anxious to contend for nosological distinction, so much as merely to communicate an instance of the propriety, if not necessity, of venesection, in a disease of apparent debility, serving, at the same time, to add a solitary example to the able remarks of Dr Parry and Dr Bateman, in the 5th and 6th Volume of this Journal, where the former observes, "That there can be little doubt of this being a case of active hæmorrhagy," and the latter, "That it certainly tends to throw a doubt upon our theories relative to such petechial effusions."

The leading points in this case, which appeared to me most worthy of notice, were, 1st, The extreme debility; 2dly, The evident phlogistic diathesis, demanding, and relieved by, venesection; and, 3dly, The appearance of the blood being precisely the same at a period when comparative health was restored, proving that a deficiency of red globules, and a discharge of gluten still existed, upon which, we are told by Dr Parry, the strength greatly depends; consequently we are to infer, that the predisposing causes of hæmorrhagy are not always those of plethora, and that there certainly existed, in this instance, a great want of energy to propel the fluids to the surface, evinced by his dry skin, and yellow or sallow countenance, which latter had the same appearance the surface of the blood presented, for at least a period of two months afterwards, so that an ordinary observer would suppose he laboured under jaundice, although I never could trace the slightest affection of the liver; and, even at the date of this, some slight remains are observable, although he is, in every other respect, in perfect health.

Liverpool, August 20th, 1812.

XII.

Cases of a peculiar Disease of the Testis, with Observations thereon.

By Thomas Little, M. D. Licentiate of the Royal College of Surgeons in Ireland, and Surgeon of the North Mayo Regiment of Militia.

Although the communication of the following cases affords nothing of originality, it will be found, notwithstanding, to be somewhat novel, and confirming, as it does, the experience of others, (a circumstance fixing, in my humble conception, a degree of value on the information it affords), it cannot fail to impress the mind of the practitioner with a correct idea of the nature and treatment adapted to the removal of a disease, which has, I believe, in too many instances, been combated by not only a severe and cruel, but also a dangerous operation. I must not, however, be understood as considering the operation of castration so essentially dangerous to life as to deter us from resorting to it, in cases where inevitable necessity exists, but having seen more than once exceedingly distressing consequences attend its performance, I should feel but little disposed to urge it, where, as will appear, a much more simple alternative can be adopted.*

† Mr Lawrence is the only writer, as far as my research carries me, who has noticed this disease, and that it is unknown to many, and those surgeons of much experience, throughout Ireland, is equally true, as oral communications have fully assured me. As to the parallel cases on record, or, as Mr Lawrence calls them, "*bearing slight analogy,*" I cannot consider them at all similar, if we except those of ‡ Sabatier and ‖ Bertrandi; and even those bear so very little similarity as to form no rule whereby future practitioners may be guided. If, then, by a knowledge of the result of the cases, as related by Mr Lawrence, and of those which I shall now have to adduce, an operation of so severe a nature as castration appears to me to be, can be avoided, much advantage must accrue, and I shall feel, that in eliciting a reconsideration of the subject, I have not been idly or unprofitably engaged. The first of the following cases occurred, as will appear by the narration, some time since; but, as I did not think a solitary case of sufficient importance to attract attention, I laid by the reports as taken at the time, till further experience might add weight to the inferences to be drawn from their results.

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* I recollect the case of a man of the name of Ferny, now a private in the 25th foot, on whom the operation was performed by the late Mr M'Evoy of Dublin, (in presence of Dr Hartigan, the Professor of Anatomy and Surgery in the University), in his usual correct and skilful manner; notwithstanding the patient with difficulty recovered from the perilous situation, to which, by incessant and profuse hæmorrhage, he was reduced. The spermatic artery was correctly included in the ligature, and the hæmorrhage proceeded from the general wounded surface.

† Edinburgh Medical and Surgical Journal, No. 15, p. 257.

‡ Memoires de l'Academie, tom. v.

‖ Memoires de l'Academie, tom. iii.

Case I.—John Collins, a respectable farmer living in the neighbourhood of Newcastle, county of Limerick, æt. 28, of strong robust make, and, previous to the occurrence of this disease, of general good health, in the month of August 1809, consulted me on the subject of an ulceration of the right testicle, under which he had laboured for the last fourteen months, arising, as he stated, from an hurt he received, by having the testicle bruised by a fall on the pommel of a saddle, in a plunge of his horse. After the occurrence of the accident, the testicle inflamed violently; but the inflammation, after a short time, was discussed by the constant use of cold saturnine applications and a rigid antiphlogistic treatment.

He was not long, however, permitted to enjoy the hope of being perfectly freed from the consequences of the injury he had received; for a recurrence of pain deep-seated in the testis, and so excessive as to produce nausea, and even syncope itself, warned him of the approaching evil. The body of the testis now became enlarged and hardened; inflammation had risen to serious height, and matter forming between the tegument and testis, spontaneously discharged itself exactly at that point where we apply the trocar in the operation for hydrocele, affording considerable, nay, entire relief from pain and symptomatic fever. In the course of the ninth or tenth day from the bursting of this abscess, at which time the opening appeared florid, and disposed to heal, (the testis still remaining irregularly hardened and enlarged), a fungous growth issued forth. The apothecary who attended having in view the destruction of it by caustic applications, rubbed it repeatedly with the sulphas cupri, dressing it with the unguentum acetitis cupri, and occasionally with the unguentum hydrarg. nitrat. making use of cold saturnine applications constantly to the body of the testis itself; but in vain did he attempt to repress this growth, which, unlike the fungus arising from other luxuriant ulcerations, was hard and incompressible, affording, when attempted to be pressed between the finger and thumb, the same sensation as that arising from compression of the testis. From this time to that in which he consulted me, it apparently continued to increase in size, until it became so large as a large apple, or until its diameter might have been about three inches and an half; the shape somewhat pyriform; the base placed next to the testicle, with a small neck, the diameter of which might be an inch and half, but, to inspect which, it required to push aside the base of the tumor, else, at a superficial view, it would seem to have a broad attachment to the testicle: the ulcerated surface was of course considerable, and the discharge large in quantity, but more viscid and mucous than is usual. Although I understood from the patient himself that the growth could by no means be repressed by caustic applications, as he considered a fair trial had already been given them, yet, as the method adopted appeared to me far from the most active, I did conceive that a more effectual use might be made of the same means, and urged, in consequence, a renewal of their use.

I began with the nitras hydr. ruber, which I sprinkled over the whole surface of the tumor every morning, during six or seven successive days, covering it with dry lint, with an external dressing of the white cerate. Finding, however, that although a daily eschar was separated from the fungus, there was still no ground gained as to the ultimate removal of the tumor, while much pain and irritation were produced, I determined on resorting to the nitras argenti, as likely, by its more powerful escharotic action, to remove a greater quantity, and, by more rapidly subduing diseased action, to produce less nervous irritation and pain. In the hope of its greater efficacy, I was, however, deceived, and, after some time, I felt inclined to fly to the aid of operative surgery, which, though so often a source of infinite benefit, should, in every case, be considered a dernier ressort, only to be employed in cases of the most imperative necessity. At this moment the Fifteenth Number of the Edinburgh Medical and Surgical Journal fell into my hands, in which I found the communication of Mr Lawrence, the statement of whose cases is given with such a degree of perspicuity, and whose practice, guided by a just and rational view of the nature of the disease, was attended with such decidedly advantageous results, as cannot fail to impress the reader with a sense of his accurate observation, and induce the practitioner to follow his guidance.

My conclusions previous to the reading of Mr Lawrence's valuable cases, drawn from the nature of the disease, "as to its consisting in original inflammation of the body of the testis, and a consequent ulceration of the external tegument, when, the proper coat of the testis becoming ruptured, the body of the gland protruded, and being then exposed, gave rise to the hard fungous enlargement of the prolapsed part," were exactly similar to his; and, although in the use of escharotics, it appears that my success was not equal to that stated in his cases, still I was revolving in my mind the propriety of the adoption of excision of the protruding part, its removal by ligature, or the entire removal of the testis by castration, as a more decisively effectual remedy. The pendulous state of the tumor, its narrow neck, and great vascularity, would seem to render the removal by ligature the most preferable; but, as I knew of no precedent to sanction the application of a ligature to a part of the gland itself, and fearing that long-continued considerable pain might attend its use in the first instance, and that, in all probability, the same disposition to fungous growth might reproduce the disease, after the removal of a part of the gland, thus rendering a severe remedy at last but nugatory, I hesitated as to the line I should adopt.—Mr Lawrence's cases, however, set my doubts at rest, and on the

16*th Sept.*—I applied a strong waxed silk ligature round the neck of the tumor, drawing it as tight as I conveniently could, without absolutely cutting through the substance of it. The surface, before florid, began now to look livid, and full of blood, which oozed from it at different points. I applied a superficial dressing over all, had him put to bed, and an opiate administered, as he complained of violent pain shooting up along the line of the spermatic nerves to the kidneys.

The pain during the night was considerable, and, on examining the tumor on the following morning, it looked evidently as if the circulation had been so far arrested as to hasten fast its progress to decay.

19*th.*—The ligature feeling somewhat loose, I removed it, applying another, which I drew as tight as possible, and found that it reduced the diameter of the neck of the tumor to less than one inch. On the

22*d*,—Finding this second ligature loose, I weighed the propriety of finishing the removal by the knife, which was effected with very slight hæmorrhage indeed; and now, by the use of adhesive straps, and the use of the sulphat of copper (which appears to possess a specific power in cicatrization), the sore was finally healed in the course of a few days, leaving a depressed cicatrix, the size of a small silver fourpenny-piece, the remainder of the testis being irregularly indurated, and of that kind of shape as if a portion had been removed, the spermatic cord remaining apparently perfectly unaffected. From the first application of the ligature, the local soreness and pain were infinitely less than before, (although from the first bursting of the abscess it was rather dull and unpleasant than acute), the only inconvenience appearing to arise from the adoption of it as a remedy, was a shooting pain up to the kidneys, frequently indeed severe, but generally palliated (if not allayed) by the opiates he was ordered each night during the cure.

Case II.—John Martin, drummer, 89th regiment of foot, ætat. 23, a small man, but, previous to the occurrence of disease, as stated in the sequel, of a strong healthy constitution. When in Guernsey, about two years seven months since, had been affected with primary symptoms of lues venerea (chancre), which, under the use of mercurial frictions, in the course of little more than a week, yielded, and he was discharged to his duty as cured. In the course of eighteen months afterwards, he felt a soreness in his throat, and says an ulcer appeared there, continued for some time, and at last, under the use of medicines, which he believes to have been mercurials, it healed. He was now a second time discharged to his duty, which he continued doing till within about seven months since, when his right testicle becoming spontaneously painful, it inflamed, became red, enlarged, and hard, attended with severe shooting pain along the cord, (which shared also in the enlargement), up to the loins, and with sickness at stomach. He was at this time in the city of Glocester, and under the care of a military medical officer there. Poultices were now recommended, and the patient was under an irregular course of mercurial friction, as well as an internal use of saline preparations, under the conception, I suppose, of the disease being connected with the former ill-treated symptoms of syphilis he laboured under. Matter now formed, fluctuation appeared evident, and a discharge by puncture of a lancet was proposed, acceded to, and performed. The most excruciating pain was produced by the puncture, insomuch that the patient fainted; a small quantity of bloody serum distilled from the opening, and, in the course of the fourth day after the operation, a whitish substance, about the size of a pea, shot out of the opening, unattended however with pain, which seemed to have altogether disappeared since the discharge of the contents of the abscess, and having, to the patient's ideas, the appearance of the testis, in which opinion his attendant coincided; and that they were both correct in their conclusion I have every reason to declare. The protruding tumor appeared, for the course of two months, during which the patient remained in Glocester, to be on the increase gradually, which indeed the inertness of the practice adopted seemed to contribute to, as the only external application made use of was the unguentum hydr. fort. as a dressing; and, internally, an irregular and occasional use of mercurial pills. A sick furlough, permitting him to return to his friends in Ireland, under the impression, I suppose, that the malady had gained an incurable height, was procured; and at the expiration of five months from the time of the puncture being made, he was seen in Eniscorthy, Ireland, by Dr Poole, the staff surgeon of the district, then on a tour of inspection. Unwilling to see this creature fall a victim to the treatment he had experienced, Dr Poole ordered him into the general hospital in Waterford, under his own immediate inspection, where, as the result proved, the natural fruit of well-directed professional skill was so abundantly to be reaped. On his admission to the general hospital of Waterford, his constitution appeared to have suffered much. The fungous growth from the testis, to which it was broadly connected, and of which it seemed to form a part, had reached the size of a clenched fist, with a flattened mushroom head, florid, and discharging an healthy matter, but more mucous and viscid than common pus; and although it was not of the same pendulous shape as in the former case, still Dr Poole meditated on the practicability of removing it by ligature, which would have been attended with facility; but here his feelings were exactly similar to mine, when, considering the propriety of similar treatment in the former case, he dreaded the constitutional affection he might produce. * The firm unyielding texture of the tunica albuginea testis was well known to him; and as arterial ligatures are so long retained, where nerves are included, the analogical inference was by no means unfair, that in this case a ligature must be long retained. He therefore trusted to the use of escharotics, in the use of which, for the course of a fortnight after admission, he studiously persisted; and as it appeared to him that a venereal taint, although not at the moment apparent, might still be lurking in a constitution so ill secured against its recurrence, he prescribed a gentle course of mercury, directing the massa pil. hyd. to be used in such quantities as to affect the mouth slightly, desisting from its use when its effects were too severely felt, and recurring to it so as to keep up a constant gentle mercurial action for some time.

The escharotics here employed were the nitrate of silver, the red precipitate, and the sulphate of copper, but none seemed to exert any influence in diminishing the growth, although a slough each day was cast from the whole surface, until the constitution became affected by the mercury. The fungous growth now daily and rapidly diminished, until at last it seemed to shrink within the surrounding surface of the teguments; and at this time there remains a depression about the size of a fivepenny piece; the surface still ulcerated, but healing rapidly; the testis is diminished in size by one half, and is of that semi-rotund shape as if it wanted its anterior half; the teguments adhering closely, the spermatic cord perfectly natural, and his constitutional health better than since the first attack of the venereal disease, now two years and seven months ago.

That this disease had some connexion with the original venereal affection, many will be disposed to doubt, and the influence

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* Charles Bell's Anatomy, Vol. IV. p. 177.

of mercury, under which the disease so speedily subsided, will not by them be considered proof sufficient to controvert their supposition, while the general utility attending an alterative course in common ulcerations, sore legs, &c. will seem to abet their conclusion. However, that there was some relic of syphilitic virus I am inclined to think; and that the mercurial course was not hastily or inconsiderately resorted to, the result proves; and as a further, though a negative proof, the origin of this disease was not, as in the greater number of Mr Lawrence's cases, founded in external accident or injury, and could be traced to nought but a depraved or tainted habit.

For the latter of those cases I am indebted to Dr Poole's kindness, who, with that readiness which characterizes the lover of science and of man, afforded me every information required, and whose views of the case being in exact unison with those which had more than three years since been mine, stamp that truth and validity on the conclusions which long experience and attentive observation must ever contribute to establish.

Waterford, February 8th, 1812.

MEDICAL EXTRACTS. No. IX.

The Croonian Lecture, on some Physiological Researches respecting the Influence of the Brain on the Action of the Heart, and on the Generation of Animal Heat. By B. C. Brodie, Esq. F. R. S.

Experiments and Observations on the different Modes in which Death is produced by certain Vegetable Poisons. By B. C. Brodie, Esq. F. R. S. *Communicated by the Society for Promoting the Knowledge of Animal Chemistry.*

Further Experiments and Observations on the Action of Poisons on the Animal System. By B. C. Brodie, Esq. F. R. S. *Communicated to the Society for the Improvement of Animal Chemistry, and by them to the Royal Society.*

Mr Brodie's papers are of that nature which we consider well calculated to furnish a series of interesting extracts.

We wish, at present, merely to put our readers in possession of the facts and opinions contained in them. Hereafter they may become the subject of critical discussion.

"In making experiments on animals, to ascertain how far the influence of the brain is necessary to the action of the heart, I found that, when an animal was pithed by dividing the spinal marrow in the upper part of the neck, respiration was immediately destroyed; but the heart still continued to contract, circulating dark-coloured blood, and that, in some instances, from ten to fifteen minutes elapsed before its action had entirely ceased. I further found, that when the head was removed, the divided blood-vessels being secured by a ligature, the circulation still continued, apparently unaffected by the entire separation of the brain. These experiments confirmed the observations of Mr Cruickshank * and M. Bichât, † that the brain is not directly necessary to the action of the heart; and that, when the functions of the brain are destroyed, the circulation ceases only in consequence of the suspension of respiration. This led me to conclude, that, if respiration was produced artificially, the heart would continue to contract for a still longer period of time, after the removal of the brain. The truth of this conclusion was ascertained by the following experiment.

"*Experiment* 1.—I divided the spinal marrow of a rabbit in the space between the occiput and atlas; and having made an opening into the trachea, fitted into it a tube of elastic gum, to which was connected a small pair of bellows, so constructed that the lungs might be inflated, and then allowed to empty themselves. By repeating this process once in five seconds, the lungs being each time fully inflated with fresh atmospheric air, an artificial respiration was kept up. I then secured the blood-vessels in the neck, and removed the head by cutting through the soft parts above the ligature, and separating the occiput from the atlas. The heart continued to contract, apparently with as much strength and frequency as in a living animal. I examined the blood in the different sets of vessels, and found it dark-coloured in the venæ cavæ and pulmonary artery, and of the usual florid red colour in the pulmonary veins and aorta. At the end of twenty-five minutes from the time of the spinal marrow being divided, the action of the heart became fainter, and the experiment was put an end to.

"With a view to promote the inquiry instituted by the Society for promoting the knowledge of animal chemistry respecting the influence of the nerves on the secretions, ‡ I endeavoured to ascertain whether they continued after the influence of the brain was removed. In the commencement of the experiment, I emptied the bladder of its contents by pressure; at the end of the experiment the bladder continued empty.

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* Philosophical Transactions, 1793.

† Recherches Physiologiques sur la Vie et la Mort.

‡ Philosophical Transactions for 1809.

"This experiment led me to conclude, that the action of the heart might be made to continue after the brain was removed, by means of artificial respiration; but that, under these circumstances, the secretion of urine did not take place."

The same results were obtained on repeating the experiment on a middle-aged dog, and on another rabbit.

"In the two last experiments the animals cooled very rapidly, notwithstanding the blood appeared to undergo the usual changes in the lungs; and I was therefore induced to doubt whether the above-mentioned opinion respecting the source of animal heat is correct. No positive conclusions, however, could be deduced from these experiments. If animal heat depends on the changes produced on the blood by the air in respiration, its being kept up to the natural standard, or otherwise, must depend on the quantity of air inspired, and on the quantity of blood passing through the lungs in a given space of time; in other words, it must be in proportion to the fulness and frequency of the pulse, and the fulness and frequency of the inspirations. It therefore became necessary to pay particular attention to these circumstances."

In experiments 4, 5, and 6, the heat of the animal sunk rapidly, notwithstanding the continuance of the respiration; and, by comparison, it appeared, that not only no heat was generated in rabbits, in which the circulation was maintained by artificial respiration, but that they cooled even more rapidly than dead rabbits. The seventh experiment, from which we extract some of the details, proves the same thing.

"I procured two large full grown rabbits of the same colour, and so nearly equal in size, that no difference could be detected by the eye.

"The temperature of the room was 57°, and the heat in the rectum of each rabbit, previous to the experiment, was 100$\frac{1}{2}$.

"I divided the spinal marrow in one of them, produced artificial respiration, and removed the head after having secured the vessels in the neck. The artificial respirations were made about 35 times in a minute.

"During the first hour the heart contracted 144 times in a minute.

"At the end of an hour and a quarter, the pulse had fallen to 136 in a minute, and it continued the same at the end of an hour and a half. At the end of an hour and forty minutes, the pulse had fallen to 90 in a minute, and the artificial respiration was not continued after this period.

"The temperature of the room being the same, the second rabbit was killed by dividing the spinal marrow, and the temperature was examined at corresponding periods.

"The following Table will shew the comparative temperature of the two animals at corresponding periods.

Time.	Rabbit with artificial respiration.		Dead Rabbit.	
	Therm. in the Rectum.	Therm. in the Pericardium.	Therm. in the Rectum.	Therm. in the Pericardium.
Before the Experiment	100½		100½	
30 min.	97		99	
45 —	95½		98	
60 —	94		96½	
75 —	92		95	
90 —	91		94	
100 —	90½	87½	93	90½

"In this experiment, the thorax, even in the dead animal, cooled more rapidly than the abdomen. This is to be explained by the difference in the bulk of these two parts. The rabbit, in which the circulation was maintained by artificial respiration, cooled more rapidly than the dead rabbit; but the difference was more perceptible in the thorax than in the rectum. This is what might be expected, if the production of animal heat does not depend on respiration, since the cold air, by which the lungs were inflated, must necessarily have abstracted a certain quantity of heat, particularly as its influence was communicated to all parts of the body, in consequence of the continuance of respiration.

"It was suggested that some animal heat might have been generated, though so small in quantity as not to counterbalance the cooling powers of the air thrown into the lungs. It is difficult or impossible to ascertain, with perfect accuracy, what effect cold air thrown into the lungs would have on the temperature of an animal under the circumstances of the last experiment, independently of any chemical action on the blood; since, if no chemical changes were produced, the circulation could not be maintained, and if the circulation ceased, the cooling properties of the air must be more confined to the thorax, and not communicated in an equal degree to the more distant parts. The following experiment, however, was instituted, as likely to afford a nearer approximation to the truth, than any other that could be devised.

"*Experiment* 8.—I procured two rabbits of the same size and colour; the temperature of the room was 64°. I killed one of them by dividing the spinal marrow, and immediately, having made an opening into the left side of the thorax, I tied a ligature round the base of the heart, so as to stop the circulation. The wound in the skin was closed by a suture. An opening was then made into the trachea, and the apparatus for artificial respiration being fitted into it, the lungs were inflated, and then allowed to collapse as in the former experiment, about 36 times in a minute. This was continued for an hour and a half, and the temperature was examined at different periods. The temperature of the room being the same, I killed the second rabbit in the same manner, and measured the temperature at corresponding periods. The comparative temperature of the two dead animals, under these circumstances, will be seen in the following table.

Time.	Dead Rabbit whose lungs were inflated.		Dead Rabbit whose lungs were not inflated.	
	Therm. in the Rectum.	Therm. in the Thorax.	Therm. in the Rectum.	Therm. in the Thorax.
Before the Experiment	100		100	
30 min.	97		98	
45 —	95½		96	
60 —	94		94½	
75 —	92½		93	
90 —	91	86	91½	88½

"In this last experiment, as may be seen from the above table, the difference in the temperature of the two rabbits, at the end of an hour and a half, in the rectum was half a degree, and in the thorax two degrees and a half; whereas, in the preceding experiment, at the end of an hour and forty minutes, the difference in the rectum was 2½ degrees, and in the thorax 3 degrees. It appears, therefore, that the rabbit, in which the circulation was maintained by artificial respiration, cooled more rapidly, on the whole, than the rabbit whose lungs were inflated in the same manner after the circulation had ceased. This is what might be expected if no heat was produced by the chemical action of the air on the blood; since, in the last case, the cold air was always applied to the same surface, but, in the former, it was applied always to fresh portions of blood, by which its cooling powers were communicated to the more distant parts of the body.

"In the experiments formerly detailed, where the circulation was maintained by means of artificial respiration, after the head was removed, I observed that the blood, in its passage through the lungs, was altered from a dark to a scarlet colour; and hence I was led to conclude, that the action of the air produced in it changes analogous to those which occur under ordinary circumstances. I have lately, with the assistance of my friend Mr W. Brande, made the following experiment, which appears to confirm the truth of this conclusion.

"An elastic gum bottle, having a tube and stop-cock connected with it, was filled with about a pint of oxygen gas. The spinal marrow was divided in the neck of a young rabbit, and the blood vessels having been secured, the head was removed, and the circulation was maintained by inflating the lungs with atmospheric air for five minutes, at the end of which time the tube of the gum bottle was inserted into the trachea, and carefully secured by a ligature, so that no air might escape. By making pressure on the gum bottle, the gas was made to pass and repass into and from the lungs about 30 times in a minute. At first, the heart acted one hundred and twenty times in a minute, with regularity and strength; the thermometer in the rectum rose to 100°. At the end of an hour, the heart acted as frequently as before, but more feebly; the blood in the arteries was very little more florid than that in the veins; the thermometer on the rectum had fallen to 98°. The gum bottle was then removed. On causing a stream of the gas, which it contained, to pass through lime-water, the presence of carbonic acid was indicated by the liquid being instantly rendered turbid. The proportion of carbonic acid was not accurately determined; but it appeared to form about one-half of the quantity of gas in the bottle.

"I have selected the above from a great number of similar experiments, which it would be needless to detail. It is sufficient to state that the general results were always the same; and that whether the pulse was frequent or slow, full or small, or whether the respirations were frequent or otherwise, there was no perceptible difference in the cooling of the animal.

"From the whole we may deduce the following conclusions.

"1. The influence of the brain is not directly necessary to the action of the heart.

"2. When the brain is injured or removed, the action of the heart ceases, only because respiration is under its influence; and if, under these circumstances, respiration is artificially produced, the circulation will still continue.

"3. When the influence of the brain is cut off, the secretion of urine appears to cease, and no heat is generated; notwithstanding the functions of respiration, and the circulation of the blood continue to be performed, and the usual changes in the appearance of the blood are produced in the lungs.

"4. When the air respired is colder than the natural temperature of the animal, the effect of respiration is not to generate, but to diminish animal heat."

On the Action of Poisons.

Mr Brodie's object, in these experiments, was to ascertain in what manner certain substances act on the animal system, so as to occasion death independently of mechanical injury, and especially, on which of the vital organs the poison employed exercises its primary influence, and through what medium that organ becomes affected. In some experiments, the poison was applied internally, that is, to the mucous membranes of the tongue and alimentary canal, and in others to wounded surfaces

Alcohol.—There are four experiments with alcohol injected into the stomach of rabbits. The third will suffice as an example.

" *Exp.* 3.—Seven drams of proof spirits were injected into the stomach of a younger rabbit. Two minutes afterwards, he evidently was affected by the spirits; and in three minutes more, he lay on one side motionless and insensible. The pupils of the eyes were perfectly dilated; there were occasional slight convulsive motions of the extremities; the respiration was laborious. It was gradually performed at longer and longer intervals; and at the end of an hour and fifteen minutes had entirely ceased. Two minutes after the animal was apparently dead, I opened into the thorax, and found the heart acting with moderate force and frequency, circulating dark-coloured blood. I introduced a tube into the trachea, and produced artificial respiration by inflating the lungs; and found that, by these means, the action of the heart might be kept up to the natural standard, as in an animal from whom the head is removed.——

" It would appear, from the experiments which I have just detailed, that the symptoms produced by a large quantity of spirits taken into the stomach, arise entirely from disturbance of the functions of the brain. The complete insensibility to external impressions, the dilatation of the pupils of the eyes, and the loss of motion, indicate that the functions of this organ are suspended. Respiration, which is under its influence, is ill performed, and at last altogether ceases; while the heart, to the action of which the brain is not directly necessary, continues to contract, circulating dark-coloured blood for some time afterwards.

" There is a striking analogy between the symptoms arising from spirits taken internally, and those produced by injuries of the brain.

" Concussion of the brain, which may be considered as the slightest degree of injury, occasions a state of mind resembling intoxication; and the resemblance, in some instances, is so complete, that the most accurate observer cannot form a diagnosis, except from the history of the case. Pressure on the brain, which is a more severe injury than concussion, produces loss of motion, insensibility, dilatation of the pupils; respiration becomes laboured and stertorous; is performed at long intervals; and at last altogether ceases, and the patient dies.

" It forms an interesting matter of inquiry, whether spirits, when taken into the stomach, produce their effects on the brain by being absorbed into the circulation, or in consequence of the sympathy that exists between these organs by means of the nerves. The following circumstances lead me to conclude that they act in the last of these two ways.

" 1. In experiments where animals have been killed by the injection of spirits into the stomach, I have found this organ to bear the marks of great inflammation, but never found any preternatural appearances whatever in the brain. 2. The effects of spirits taken into the stomach, in the last experiment (No 4.), were so instantaneous, that it appears impossible that absorption should have taken place before they were produced. 3. A person who is intoxicated frequently becomes suddenly sober after vomiting. 4. In the experiments which I have just related, I mixed tincture of rhubarb with the spirits, knowing, from the experiments of Mr Home and Mr William Brande, that this, when absorbed into the circulation, was readily separated from the blood by the kidneys, and that very small quantities might be detected in the urine by the addition of potash; but, though I never failed to find urine in the bladder, I never detected rhubarb in it.

" The including the termination of the thoracic duct in a ligature does not prevent spirits, when taken into the stomach, from producing their usual effects on the nervous system; but subsequent observations, which Mr Home has already communicated to this Society, have shown that no conclusion can be drawn from this experiment."

The effects of the essential oil of bitter almonds, and the juice of the leaves of aconite, were similar to those of alcohol; as were likewise those of the empyreumatic oil of tobacco. But it is remarkable that the infusion of this last narcotic herb seemed to act on totally different principles.

" *Exp.* 8.—Four ounces of infusion of tobacco were injected into the rectum of a dog. Four minutes afterwards he retched, but did not vomit. He then became faint, and lay motionless on one side. At the end of nine minutes from the time of the injection, the heart could not be felt. He gasped for breath at long intervals; and in another minute there was no appearance whatever of life. I immediately laid open the cavities of the thorax and abdomen. The heart was much distended, and had entirely ceased to contract. There was no peristaltic motion of the intestines.

" *Exp.* 11.—Three ounces of infusion of tobacco were injected into the rectum of a dog. Immediately there took place tremulous contractions of the voluntary muscles. Five minutes afterwards, the injection was repeated in the same quantity. The dog then was sick, and threw up some of the infusion, with other matter, from the stomach: he became faint, and died ten minutes after the second injection. Immediately after respiration had ceased, I opened the thorax, and found the heart extremely distended, and without any evident contraction, except of the appendix of the right auricle, which every now and then contracted in a slight degree. I divided the pericardium on the right side. In consequence of the extreme distension of the heart, this could not be done without irritating the fibres with the point of the scalpel. Immediately both auricles and ventricles began to contract with considerable force, so as to restore the circulation. Artificial respiration was produced, and the circulation was kept up for more than half an hour, beyond which time the experiment was not continued.

" We may conclude from these experiments, that the effect of the infusion of tobacco, when injected into the intestine of a living animal, is to destroy the action of the heart, stopping the circulation, and producing syncope. It appeared to me, that the action of the heart ceased even before the animal had ceased to respire; and this was confirmed by another experiment, in which, in a dog killed by the infusion of tobacco, I found the cavities of the left side of the heart to contain scarlet blood, while in those of the right side the blood was dark-coloured. This poison, therefore, differs materially from alcohol, the essential oil of almonds, and the juice of aconite, which have no direct influence on the action of the heart. The infusion of tobacco renders the heart insensible to the stimulus of the blood; but it does not altogether destroy the power of muscular contraction, since the heart resumed its action in one instance on the division of the pericardium, and I have found that the voluntary muscles of an animal killed by this poison, are as readily stimulated to contract by the influence of the Voltaic battery, as if it had been killed in any other manner. At the same time, however, that the infusion of tobacco destroys the action of the heart, it appears to destroy also the functions of the brain, since these did not return in the last experiment; although the circulation was restored, and kept up by artificial respiration.

" Since there is no direct communication between the intestinal canal and the heart, I was at first induced to suppose that the latter becomes affected in consequence of the infusion being conveyed into the blood by absorption. Some circumstances in the following experiment have since led me to doubt whether this is the case.

" *Exp.* 12.—In a dog whose head was removed, I kept up the circulation by means of artificial respiration, in the manner already described in the account of some experiments which I lately communicated to this Society. I then injected into the stomach and intestines nine ounces of infusion of tobacco. At the time of the injection, the body of the animal lay perfectly quiet and motionless on the table: the heart acted regularly one hundred times in a minute. Ten minutes afterwards, the pulse rose to one hundred and forty in a minute; the peristaltic motion of the intestines was much increased, and the voluntary muscles in every part of the body were thrown into repeated and violent spasmodic action. The joints of the extremities were alternately bent and extended; the muscles of the spine, abdomen, and tail, alternately relaxed and contracted, so as to turn the whole animal from one side to the other. I have observed, in other instances, spasmodic actions of the muscles, where the circulation was kept up by artificial respiration, after the removal of the head, but not at all to be compared, either in strength or frequency, with those which took place on this occasion. I made pressure on the abdominal aorta for more than a minute, so as to obstruct the circulation of the blood in the lower extremities; but the muscular contractions were not lessened in consequence. Half an hour after the injection of the infusion, the artificial respiration was discontinued. The heart continued to act, circulating dark-coloured blood; the muscular contractions continued, but gradually diminished in strength and frequency. I tied a ligature round the vessels at the base of the heart, so as to stop the circulation;

nevertheless the muscular contractions still continued, though less frequent and forcible than before, and some minutes elapsed before they entirely ceased.

"In this experiment, the disposition to contraction in the muscles was very much increased instead of being diminished, as in those just related. If the infusion of tobacco influences the heart from being absorbed into the blood, and thus coming into actual contact with its fibres, there is no evident reason, why the removal of the brain, and the employment of artificial respiration should occasion so material a difference in its effects. If the contractions of the voluntary muscles had depended on the infusion circulating with the blood, it is reasonable to suppose that the pressure on the aorta would have occasioned some diminution of them, and that the complete obstruction of the circulation would have caused them to cease altogether.

"From these considerations I am induced, on the whole, to believe that the infusion of tobacco, when injected into the intestines, influences the heart through the medium of the nervous system; but I have not been able to devise any experiment, by which the truth or fallacy of this opinion might be put beyond the reach of doubt.

"It appears remarkable, that the brain and nervous system, although not necessary to the action of the heart, should, when under the influence of the infusion of tobacco, be capable of influencing this organ so as to stop its action; but this is analogous to what we see occur in consequence of violent emotions of the mind. Those states of the nervous system, which accompany the passions of joy, fear, or anger, when existing in a moderate degree, render the heart more sensible to the stimulus of the blood, and increase the frequency of its contractions; while, when the same passions exist in a greater degree, the heart is rendered altogether insensible to the stimulus of the blood; and syncope ensues."

The essential oil of bitter almonds, and the juice of aconite, applied to wounded surfaces, produced the same effects as when applied internally, though less speedily. The *woorara*, a poison with which the inhabitants of Guiana arm the points of their arrows, when inserted into wounds, belongs to the same class of poisons. The *upas antiar*, a poison from Java, acts in a different manner.

"When inserted into a wound, it produces death (as infusion of tobacco does when injected into the intestine) by rendering the heart insensible to the stimulus of the blood, and stopping the circulation. The heart beats feebly and irregularly before either the functions of the mind or the respiration appear to be affected. Respiration is performed even after the circulation has ceased; and the left side of the heart is found after death to contain scarlet blood, which never can be the case, where the cause of death is the cessation of the functions of the brain or lungs. The convulsions, which occur when the circulation has nearly ceased, probably arise from the diminution of the supply of blood to the brain, resembling those which take place in a person who is dying from hæmorrhage.——

"Having learned, that the circulation might be kept up by artificial respiration for a considerable time after the woorara had produced its full effects, it occurred to me, that, in an animal under the influence of this, or of any other poison that acts in a similar manner, by continuing the artificial respiration for a sufficient length of time after natural respiration had ceased, the brain might recover from the impression which the poison had produced, and the animal might be restored to life. In the last experiment, the animal gave no sign of returning sensibility; but, it is to be observed—1. That the quantity of the poison employed was very large. 2. That there was a great loss of animal heat, in consequence of the temperature of the room being much below the natural temperature of the animal, which could not therefore be considered under such favourable circumstances as to recovery, as if it had been kept in a higher temperature. 3. That the circulation was still vigorous when I left off inflating the lungs; and therefore it cannot be known what would have been the result, if the artificial respiration had been longer continued.

"*Exp.* 30.—A wound was made in the side of a rabbit, and one drop of the essential oil of almonds was inserted into it; and immediately the animal was placed in a temperature of 90°. In two minutes, he was under the influence of the poison. The usual symptoms took place; and in three minutes more respiration had ceased, and he lay apparently dead; but the heart was still felt beating through the ribs. A tube was then introduced into one of the nostrils, and the lungs were inflated about thirty-five times in a minute. Six minutes after the commencement of artificial respiration, he moved his head and legs, and made an effort to breathe. He then was seized with convulsions, and again lay motionless, but continued to make occasional efforts to breathe. Sixteen minutes after its commencement, the artificial respiration was continued. He now breathed spontaneously seventy times in a minute, and moved his head and extremities. After this, he occasionally rose, and attempted to walk. In the intervals, he continued in a dozing state; but from this he gradually recovered. In less than two hours he appeared perfectly well, and he continued well on the following day.

"The inflating the lungs has been frequently recommended in cases of suffocation, where the cause of death is the cessation of the functions of the lungs. As far as I know, it has not been before proposed in those cases in which the cause of death is the cessation of the functions of the brain.* It is probable that this method of treatment might be employed with advantage for the recovery of persons labouring under the effects of opium, and many other poisons.——

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* Since this paper was read, I have been favoured by the Right Hon. the President with the perusal of a Dissertation on the Effects of the Upas Tieutè, lately published at Paris by M. Delile; by which I find, that he had employed artificial respiration for the purpose of recovering animals which were under the influence of this poison, with success. M. Delile describes the Upas Tieutè as causing death, by occasioning repeated and long-continued contractions of the muscles of respiration, on which it acts through the medium of the spinal marrow, without destroying the functions of the brain.

"The experiments, which have been detailed, lead to the following conclusions.

"1. Alcohol, the essential oil of almonds, the juice of aconite, the empyreumatic oil of tobacco, and the woorara, act as poisons, by simply destroying the functions of the brain; universal death taking place, because respiration is under the influence of the brain, and ceases when its functions are destroyed.

"2. The infusion of tobacco, when injected into the intestines, and the upas antiar when applied to a wound, have the power of rendering the heart insensible to the stimulus of the blood, thus stopping the circulation; in other words, they occasion syncope.

"3. There is reason to believe that the poisons, which, in these experiments, were applied internally, produce their effects through the medium of the nerves, without being absorbed into the circulation.

"4. When the woorara is applied to a wound, it produces its effects on the brain, by entering the circulation through the divided blood-vessels; and, from analogy, we may conclude, that other poisons, when applied to wounds, operate in a similar manner.

"5. When an animal is apparently dead from the influence of a poison, which acts by simply destroying the functions of the brain, it may, in some instances at least, be made to recover, if respiration is artificially produced, and continued for a certain length of time."

Arsenic.

In Mr Brodie's various experiments with this mineral poison, the results in all essential circumstances were the same.

"The symptoms produced were—1. Paralysis of the hind legs, and afterwards of the other parts of the body; convulsions; dilatation of the pupils of the eyes; insensibility,—all of which indicate disturbance of the functions of the brain. 2. A feeble, slow, intermitting pulse, indicating disturbance of the functions of the heart. Where the heart has continued to act after apparent death, I have never, in any one instance, been able to prolong its action by means of artificial respiration. 3. Pain in the region of the abdomen; preternatural secretion of mucus from the alimentary canal; sickness and vomiting in those animals which are capable of vomiting; symptoms which arise from the action of the poison on the stomach and intestines. There is no difference in the effects of arsenic, whether it is employed in the form of white oxide, or of arsenic acid, except that the latter is a more active preparation. When arsenic is applied to a wound, the symptoms take place sooner than when it is given internally; but their nature is the same." ————

"In whatever way the poison is administered, the inflammation is confined to the stomach and intestines; I have never seen any appearance of it in the pharynx or œsophagus.

"Mr Home informed me, that in an experiment made by Mr Hunter and himself, in which arsenic was applied to a wound in a dog, the animal died in twenty-four hours, and the stomach was found to be considerably inflamed.

"I repeated this experiment several times, taking the precaution always of applying a bandage to prevent the animal licking the wound. The result was, that the inflammation of the stomach was commonly more violent and more immediate, than when the poison was administered internally, and that it preceded any appearance of inflammation of the wound. Some experiments are already before the public, which led me to conclude that vegetable poisons, when applied to wounded surfaces, affect the system by passing into the circulation through the divided veins. From this analogy, and from all the circumstances just mentioned, it may be inferred that arsenic, in whatever way it is administered, does not produce its effects even on the stomach until it is carried into the blood.

"But the blood is not necessary to life, except so far as a constant supply of it is necessary for the maintenance of the functions of the vital organs. The next object of inquiry therefore is, when arsenic has entered the circulation, on what organs does it operate, so as to occasion death?

"When arsenic is applied to an ulcerated surface, it produces a slough, not by acting chemically, like caustics in general, but by destroying the vitality of the part to which it is applied, independently of chemical action. This led me at first to suppose, that when arsenic has passed into the circulation, death is the consequence, not so much of the poison disturbing the functions of any particular organ, as of its destroying at once the vitality of every part of the system. The following circumstances, however, seem to show that this opinion is erroneous. In an animal under the full influence of arsenic, even to the instant of death, some of the secretions, as those of the kidneys, stomach, and intestines, continue to take place in large quantity; and the muscles are capable of being excited, after death, to distinct and powerful contractions, by means of the Voltaic battery.

"In animals killed by arsenic, the blood is usually found fluid in the heart and vessels after death; but otherwise all the morbid appearances met with on dissection are confined to the stomach and intestines. As this is the case, and as the affection of these organs occasions remarkable symptoms, it may be right to mention the result of my observations on this subject.

"In many cases where death takes place, there is only a very slight degree of inflammation of the alimentary canal: in other cases, the inflammation is considerable. It generally begins very soon after the poison is administered, and appears greater or less according to the time which elapses before the animal dies. Under the same circumstances, it is less in graminivorous than in carnivorous animals. The inflammation is greatest in the stomach and intestines; but it usually extends also over the whole intestine. I have never observed inflammation of the œsophagus. The inflammation is greater in degree, and more speedy in taking place, when arsenic is applied to a wound, than when it is taken into the stomach. The inflamed parts are in general universally red, at other times they are red only in spots. The principal vessels leading to the stomach and intestines are turgid with blood; but the inflammation is usually confined to the mucous membrane of these viscera, which assumes a florid red colour, becomes soft and pulpy, and is separable without much difficulty from the cellular coat, which has its natural appearance. In some instances there are small spots of extravasated blood on the inner surface of the mucous membrane, or between it and the cellular coat, and this occurs independently of vomiting. I have never, in any of my experiments, found ulceration or sloughing of the stomach or intestine; but if the animal survives for a certain length of time, after the inflammation has begun, it is reasonable to conclude that it may terminate in one or other of these ways.

" I am disposed to believe that sloughing is very seldom, if ever, the direct consequence of the application of arsenic to the stomach or intestines. Arsenic applied to an ulcer will occasion a slough; but its action in doing this is very slow. When I have applied the white oxide of arsenic to a wound, though the animal has sometimes lived three or four hours afterwards, and though violent inflammation has taken place in the stomach and intestines, I have never seen any preternatural appearance in the part to which it was applied, except a slight effusion of serum into the cellular membrane. Arsenic speedily produces a very copious secretion of mucus and watery fluid from the stomach and intestines, which separates it from actual contact with the inner surface of these organs, even though taken in large quantity and in substance; and in animals which are capable of vomiting, by much the greater part is rejected from the stomach very soon after it has been taken in. Hence, though a few particles of arsenic are sometimes found entangled in the mucus, or in the coagulum of extravasated blood, and adhering to the inner surface of the stomach, I have never seen it in such a quantity as might be supposed capable of producing a slough. In one instance, where a dog had swallowed a large quantity of arsenic in substance, a brown spot, about an inch in diameter, was observed after death on the inner surface of the cardiac extremity of the stomach, having so much of the appearance of a slough, that at first I had no doubt of it being so; but, on examination, this proved to be only a thin layer of dark-coloured coagulum of blood, adhering very firmly to the surface of the mucous membrane, and having a few particles of arsenic entangled in it. On removing this, the mucous membrane still appeared of a dark colour; but this was also found to arise from a thin layer of coagulum of blood between it and the cellular coat. The mucous membrane itself was inflamed; but otherwise in a natural state. I have observed a similar appearance, but occupying a less extent of surface, several times. In the Hunterian Museum there is a human stomach, which was preserved to show what was considered as a slough produced by the action of arsenic. On examining this preparation, I found that the dark coloured spot, which had been supposed to be a slough, was precisely of the same nature with that just described.

"Although the affection of the stomach and intestines from arsenic is not the cause of death, under ordinary circumstances, it is reasonable to conclude that it may be so in some instances, if the animal survives the effects produced on the organs more immediately necessary to life. Mr Henry Earle informed me of an instance, in which this appeared to be the case. A woman in St Bartholomew's Hospital, who had taken arsenic, recovered of the immediate symptoms, but died at the end of four or five days. On examination after death, extensive ulcerations were found of the mucous membrane of the stomach and intestines, which we can hardly doubt to have been the cause of death.

"It is an important matter of inquiry, as connected with judicial medicine, how far may the examination of the body, after death, enable us to decide, whether an animal has died of the effects of arsenic? On this subject, however, I have only a few remarks to make.

"The inflammation from arsenic, occupying in general the whole of the stomach and intestine, is more extensive than that from any other poison with which I am acquainted. It does not affect the pharynx or œsophagus; and this circumstance distinguishes it from the inflammation which is occasioned by the actual contact of irritating applications.

"But little in general is to be learnt from the examination of the contents of the stomach after death. When arsenic has been taken in substance, small particles of it are frequently found entangled in the mucus, or in the extravasated blood; but where this was not the case, I have never known, in an animal that was capable of vomiting, that arsenic could be detected in the contents of the stomach after death, though examined by the most accurate chemical tests. As some substances when taken internally are separated from the blood very soon afterwards with the urine, I thought it probable that arsenic might be separated with the urine also; but Mr Brande (to whom I am indebted for assistance on this, as well as on many other occasions) could never detect the smallest trace of arsenic in it."

Muriate of barytes and emetic tartar, resemble arsenic very much in their mode of action. It is otherwise with corrosive sublimate.

"*Experiment* 8.—Six grains of corrosive sublimate, dissolved in six drams of distilled water, were injected into the stomach of a rabbit by means of an elastic gum tube. No immediate symptoms followed the injection; the animal made no expression of pain; but in three minutes he became insensible; was convulsed; and in four minutes and an half, from the time of the injection being made, he died. Tremulous contractions of the voluntary muscles continued for some time afterwards. On opening the thorax, the heart was found to have entirely ceased acting, and the blood in the cavities of the left side was of a scarlet colour. The stomach was much distended. The pyloric and cardiac portions were separated from each other by a strong muscular contraction. The contents of the former were firm and solid, and in every respect resembled the usual contents of the stomach; while those of the cardiac portion consisted of the food of the animal much diluted by fluid; so that the solution, which had been injected, appeared to be confined to the cardiac portion of the stomach, and to be prevented entering the pyloric portion by the muscular contraction in the centre.

" In the pyloric portion of the stomach the mucous membrane had its natural appearance; but in the cardiac portion it was of a dark grey colour, was readily torn and peeled off; and in some parts its texture was completely destroyed, so that it appeared like a pulp, on removing which the muscular and peritoneal coats were exposed.

" The repetition of the experiment was attended with similar results. The alteration of the texture of the internal membrane appears to have been occasioned by its being chemically acted on by the corrosive sublimate injected into it. When the injection is made into the stomach of a dead rabbit, precisely the same effects are produced, except that, as the middle contraction is here wanting, the appearances are not confined in the same degree to the cardiac portion.

" The destruction of the substance of the internal membrane of the stomach, precludes the idea of the poison having been absorbed into the circulation. We must conclude that death was the consequence of the chemical action of the poison on the stomach. This organ, however, is not directly necessary to life, since its functions, under certain circumstances, are suspended for hours, or even for days, without death being produced. Although the stomach was the part primarily affected, the immediate cause of death must be looked for in the cessation of the functions of one or more of those organs, whose constant action is necessary to life. From the scarlet colour of the blood in the left side of the heart, in the experiment on the rabbit, we may conclude that the functions of the lungs were not affected; but the affection of the heart and brain is proved by the convulsions, the insensibility, the affection of the pulse in both experiments, and the sudden cessation of the heart's action in the first; and we may therefore be justified in concluding, that the immediate cause of death was in both of these organs. As the effects produced appear to have been independent of absorption, we may presume that the heart, as well as the brain, was acted on through the medium of the nerves.

"That a sudden and violent injury of the stomach should be capable of thus speedily proving fatal is not surprising, when we consider the powerful sympathy between it and the organs on which life more immediately depends, and the existence of which many circumstances in disease daily demonstrate to us.

"The facts which have been stated, appear to lead to the following conclusions respecting the action of the mineral poisons, which were employed in the foregoing experiments:

"1. Arsenic, the emetic tartar, and the muriate of barytes do not produce their deleterious effects until they have passed into the circulation.

"2. All of these poisons occasion disorder of the functions of the heart, brain, and alimentary canal; but they do not all affect these organs in the same relative degree.

"3. Arsenic operates on the alimentary canal in a greater degree than either the emetic tartar, or the muriate of barytes. The heart is affected more by arsenic than by the emetic tartar, and more by this last than by the muriate of barytes.

"4. The corrosive sublimate, when taken internally in large quantity, occasions death by acting chemically on the mucous membrane of the stomach, so as to destroy its texture; the organs more immediately necessary to life being affected in consequence of their sympathy with the stomach.

"In making the comparison between them, we observe that the effects of mineral are less simple than those of the generality of vegetable poisons; and when once an animal is affected by the former, there is much less chance of his recovery than when he is affected by the latter."

PART II.

CRITICAL ANALYSIS.

I.

A Description of the Arteries of the Human Body. By JOHN BARCLAY, M.D. Lecturer on Anatomy and Surgery, Fellow of the Royal College of Physicians, and of the Royal Society of Edinburgh, &c. &c. Edinburgh, 1812. pp. 283.

THE importance of the subject of this volume admits of no doubt. We have therefore only to inquire into the manner in which it has been treated by our author; and in a prefatory address to his pupils, he has stated, rather quaintly, several points of view in which his work may be considered. "Why another description of the arteries? Why is it so short? Why is it so long? and Why is it not accompanied by plates?" The last of these questions deserves notice, on account of the novelty of the objections to their use which Dr Barclay has urged. He admits, that plates, as pictures of individual objects, convey more lively impressions than verbal descriptions, and require less time and less mental exertion to comprehend them; that their attraction induces many to think of the subjects to which they relate, as children are tempted to read, for the sake of the pictures; and that where the objects are such as the reader has never seen and never may see, as in books of pathology and natural history, they assist the reader in forming more clear and precise ideas of the subject. Not so in anatomy: the student has more easy access to the parts themselves than to good plates; as most commonly they are inaccurate, and not unfrequently false copies. But even the best anatomical plates of the arteries, for example, contain only the representation of some particular ramification, or mixture of particular ramifications; for it would require innumerable plates to represent all the diversities of ramification, and it is impossible to condense the particular diversities of ramification into one form.

" Anatomical plates, therefore, representing one of the common varieties of an organ, should, if properly understood, be only an incitement to study the rest. The absurd, but too prevalent notion, that these are expressive of certain generic or specific characters; that they supersede the necessity of reading, or of examining the organs themselves in all their varieties, has induced a degree of indifference and supineness, that has been injurious to the progress of anatomy.

" Even the splendid anatomical plates of Albinus and Haller have, from this cause, instead of promoting, rather retarded the spirit of inquiry, and withdrawn the attention from the study and pursuit of general truths to which science aspires, to the contemplation of particular facts from which it commences. The plates of Albinus, instead of inducing the anatomist to read his work *De Sceleto Humano,* and his work entitled, *Historia Musculorum,* have been the means of suffering them to fall into almost total neglect and oblivion. Little surely did Albinus imagine, that, after publishing his *Historia Musculorum,* the attachment of the obliquus externus to the spine of the pubes, or the compression of the urethra, by the muscles called *compressores prostatæ,* would have ever been considered as the discoveries of later times; and less surely might Haller have imagined, when he combated the opinion that the high division of the humeral artery was not the most common, that his learned annotations would have been forgotten, and his plates quoted, not half a century after his death, to prove he was ignorant of the very division of which he had collected so various proofs, of which he had seen, and of which he had examined such a number of cases to ascertain, on the principles of induction, whether it or the one which he has depicted was the most common.

" This fondness for the plates, and reluctance to the labour of studying the works, which the plates were only intended to illustrate, presage nothing that is favourable to anatomy. They indicate the decline of those energies, and of that enthusiasm, by which its boundaries were originally extended; they imply that anatomists are beginning to dislike the *smell of the lamp;* that they feel not the pleasure, which they ought to feel, in the actual inspection of the objects themselves; that they seldom persevere until they are fatigued, or rejoice at being fatigued in such a cause; and that they are appalled at the labour and toil that are absolutely necessary for the successful prosecution of science." p. xv.—xviii.

We will concede to Dr Barclay, that the fresh subject is incomparably the best means of studying anatomy; we will admit, that dry preparations are in some respects preferable to very good plates; and we will even grant, that, in some instances, plates have directly retarded the progress of anatomical knowledge;—still it is impossible not to perceive, that Dr Barclay's arguments against them are exaggerated, and that he has undervalued their advantages. As the means of refreshing the memory of those who have studied the anatomy of the fresh subject, of increasing the utility of dried preparations by supplying the natural appearances of the parts totally lost in these, and of directing the young student in his researches and dissections, their value is great and obvious. That many content themselves with examining plates without studying the works connected with them is no doubt true; but these would have equally neglected the works, though no plates had accompanied them; and even of anatomy, it is better to have the degree of knowledge to be got from plates, than to be altogether ignorant. Nor is it necessary, for a plate to be useful, that it be very elegant and minutely correct. We have no fears that bad copies of good representations should degrade and corrupt the taste of the student; and in a subject so extremely variable, accuracy in essential points, or what Dr Barclay would perhaps call specific characters, is all that is required.

We cannot possibly discover, in the laboured productions of Scarpa and Caldani, Soemmering and Gall, and many living anatomists of our own country, any decline of the energies, and of that enthusiasm by which the boundaries of the science were originally extended, or in the admiration with which our students contemplate them, or the diligence with which they pore over the useful compilations of Fyfe or Loder, any thing unfavourable to the progress of anatomy. At the same time, while we defend the utility of plates against Dr Barclay's general objections, we have no inclination, in reference to his own publication, to ask "Why is it not accompanied with plates?"

In an introduction, our author gives some general ideas concerning the different ramified systems of the body; and here again he comments upon the bad effects of even the best engravings.

"Yet, notwithstanding the greater regularity of all the larger ramifications in the animal kingdom, every individual exhibits many peculiar varieties in the smaller branches, and even in some of the larger branches, where parts are diseased, or where habits are formed of varied extensive and voluntary motions. Such varieties, in copying from nature, are often represented in anatomical engravings, and references, often made indiscriminately, to the varieties as well as to the common ramifications. These engravings, again, if works of celebrity, are often, along with their verbal descriptions, and with very little change, copied by others, while these copies, passing for originals with the young and unsuspicious, the conclusion is, that branchings described by so many anatomists in different countries, and at different periods, must be branchings, if not universally present, at least very general among the species.

"On this hypothesis, and with a persuasion that appearances observed, and with little variation in every individual, must be matters of importance, and among the essential characters of the species, the student proceeds to examine them with care, and, trying to remember them with their connexions and relative situations, soon finds that his labours are vain, and desists from his task in a fit of despondency;—nor need his despondency be a matter of wonder." p. xiv. xv.

"Fortunately it is neither neceſſary nor proper, the very attempt being equally repugnant to the principles of reaſon and common ſenſe. Let him only compare, with theſe plates and deſcriptions, a few preparations where the veſſels have been ſucceſsfully injected, or the branchings of nerves minutely diſſected; he ſhall ſee his preparations in the ſmaller branches differing widely, not only from the plates, but from one another; and ſhall ſee each preparation exhibiting branches and ramifications peculiar to itſelf, exhibiting many not referred to in the plates, and wanting many that are there honoured with obtruſive references and tedious deſcriptions. Such a compariſon muſt ſoon convince him, that many branches and ramifications deſcribed by anatomiſts, are the mere peculiarities of individuals, and yet theſe not a tenth, nor a twentieth part of what they might have talked of, had they deſcended to ſtill ſmaller branches, nor one million of a thouſand millions, had they taken the microſcope, and tried to diſcover, enumerate, and deſcribe the extreme branches that elude the ſight of the naked eye." p. xvi.

Accordingly our author, in imitation of the systematic writers on natural history, has endeavoured to describe, not the individual, but the species.

"In deſcribing the four ramified ſyſtems, as occurring in man and the lower animals, under a great variety of forms, we perhaps, like the naturaliſt, might find it neceſſary to divide each into different orders, genera, and ſpecies.* But, confining our views to the ramified ſyſtems of the human body, the characters which diſtinguiſh their different orders, genera, and ſpecies, fall not within the plan of our inquiry. We have merely to ſelect the characters of the ſpecies from the varieties that diſtinguiſh individuals. Thus, in comparing the arterial branches and ramifications of many individuals, we have to examine all the appearances wherein they differ, and wherein they agree; wherein they agree often, and wherein ſeldom; to diſtinguiſh what are regular from what are variable, what are peculiar from what are general; and then to fix on the regular and general as the characters of the ſpecies: Noting at the ſame time the nature and frequency of the exceptions from the general rule, but omitting entirely the uncertain and unimportant varieties that diſtinguiſh individuals, and which never can be objects of any deſcription that is applicable to the ſpecies.

"By leaving as uncertain what is uncertain, and deſcribing as regular only what is regular, we ſhould greatly facilitate the progreſs of anatomy, relieve our deſcriptions from a great number of uſeleſs incumbrances, prevent trifles from mingling themſelves with matters of importance, and give to our details a character of clearneſs, manlineſs, and intereſt, which they hitherto have not had.

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* "The rete mirabile of Galen, the rete mirabile of Hovius, the ramification of the humeral artery as in the lemur, the ramifications of the mesenteric as in the sow, and the ramifications of the renal as in the cat, are properly generic ramifications.

"Should it be objected to ſuch deſcriptions, that they muſt neceſſarily be vague and imperfect, the reply is, that they muſt certainly be vague and imperfect, conſidered as deſcriptions of any individual, juſt as deſcriptions of any individual muſt be vague and imperfect deſcriptions of the ſpecies. But although the uniform characters of the ſpecies be more general than the varieties of the individual, it does not follow that the deſcription of theſe general characters may not be fully as minute and accurate as that of the individual varieties." ‡ p. xix.—xxi.

The difficulty of such an undertaking must be obvious, because whatever truth there may be in the censure of many anatomists, for describing, as common, what perhaps belongs only to an individual, still the principle of describing the *species* of arterial ramification, is founded on a false analogy. In anatomy, the formation of species, varieties and exceptions, must be entirely arbitrary, and is not, as in natural history, connected with essential characters. In arterial distribution, there is no such thing as *species*; we have merely individuals, which have more or less resemblance to each other; and the only classification of which they admit is into unique, rare, common, and general. But while we deny and utterly reject the false appellation, by which Dr Barclay would give a systematic air to his descriptions, we are far from finding fault with their *kind*, and we consider the student under very great obligations to our author, for teaching him to appreciate duly the difference between what is universal, common, and rare, and also between those cases where the variety of distribution is limited in number, and where it is almost as numerous as the individuals.

On the nomenclature of the arteries, we could not expect Dr Barclay to be silent.

"With the names of the arteries, I ſhall take few liberties, except where they lead to ambiguity or error; or where a change would ſimplify and improve the language of deſcription.

"When they are named from their deſtination, or from the organs on which they are ramified, they and the organs, when the change can be made without much innovation, ſhould always have their names from the ſame language. For inſtance, the names of the principal muſcles attached to the tongue, have an alluſion to its Greek name gloſſa; while the name of the artery has an alluſion to its Latin name lingua. It would have been better had the ſame epithet which diſtinguiſhes the muſcles, and a pair of the nerves belonging to the tongue, been alſo made to diſtinguiſh the artery.

"The parts of arteries ſhould never be deſcribed under ſeparate heads, as if they were whole or entire arteries; what we denominate the ſubclavian, the axillary, and the humeral arteries, are but different parts of the ſame trunk; and what we denominate the common iliac, the external iliac, the common femoral, the ſuperficial femoral, the popliteal, and poſterior tibial, are different portions of another trunk. It is ſurely abſurd, that theſe different *parts* ſhould each have a name; and yet, that the *wholes* of which they are *parts*, ſhould have no names. Where it is expedient (and there are caſes where it may be expedient) to diſtinguiſh the parts by appropriate names, let them be diſtinguiſhed by all means, but let them ſtill be diſtinguiſhed as parts, and not as wholes." p. xxviii. xxix.

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‡ "It is much to be regretted that such distinctions are not oftener made, and that the fashion of describing individuals instead of the species, is scarcely a more common error in anatomy, than the fashion in practice of prescribing for the species instead of the individual, who often swallows universal remedies recommended indiscriminately by impostors, to both sexes, and to all varieties of age, condition, previous habits, and idiosyncrasies."

Having dwelt at so great length on the introductory remarks of Dr Barclay, we shall enter very briefly into the work itself. Indeed it would be preposterous to attempt a regular analysis of a publication of this nature. We have only to describe it generally, and to give a specimen of the manner in which it is executed. In one word it is a *most provoking* book. We have learnt from it, that all our supposed knowledge of angeiology is founded in error, that the time we bestowed in learning the divisions and subdivisions of the arteries was all mispent, and that the labour with which we constructed and impressed upon our memory, tabular schemes of the distribution of arteries, was worse than useless. To anatomical *discoverers*, this book is a most mortifying production. It almost precludes the possibility of claiming any credit for having had the good luck to meet with, or the attention to describe, any supposed deviation from the usual arrangement of the vessels. According to Dr Barclay there is no uniformity, and, except in the very large trunks, nothing but endless variety, and, we had almost added, confusion. Thus, speaking of the humeral artery, he says—

"The humeral portion of the brachial artery commences where the axillary portion ends, and is uſually deſcribed as extending thence to the bend of the arm, where it divides into the radial and ulnar branches. But this deſcription, although conſiſtent with the figures given by Euſtachius and Haller, does not correspond with the appearances which the artery often exhibits in the ſpecies. If the humeral portion is to be defined as terminating always in what are called the radial and ulnar branches, there are many caſes, where it muſt terminate near the axilla, and at all the diſtances between that and the bend of the arm. On the other hand, if it be defined as always extending to the bend of the arm, one or other of the two branches, which are now denominated the radial and ulnar, muſt aſſume the name of Humeral Artery; ſo that the term *Humeral Artery*, or humeral portion of the brachial artery, muſt, at different times, be made to convey very different meanings. As for Haller's figure of this artery, and its ramifications, after what he has ſaid concerning the principles on which he proceeded, it cannot be thought diſreſpectful or injurious to his high and juſtly acquired reputation, to ſay, it is not an accurate deſcription of any appearance that is common to the ſpecies; nor, indeed, a deſcription applicable throughout to any appearance that occurs in individuals, but merely a deſcription of one of the occaſional appearances of the artery, along with varieties of ramification which he had obſerved at different times, and in different ſubjects, and from which he had formed that ideal combination, which the figure repreſents. His honeſt and manly declaration of the motives by which he was actuated, in conſtructing that figure, ſhould exempt him from cenſure; but in what manner ſhall we vindicate thoſe, who, not looking beyond the figure, have ſervilely deſcribed his ideal combination at the time they were pretending to be copying from nature, and thereby have led a number of thoſe, who careleſsly confided in their deſcriptions, to entertain the erroneous opinion, that the humeral artery, in ſize, diſtribution, and ramification, is remarkably regular throughout the ſpecies. Their ſeveral accounts, upon the idea that they were taken from actual obſervation, were naturally viewed as corroborative evidence of one another, and accordingly, the whole conſidered as a proof, that the artery had the ſame, or nearly the ſame appearance and character, in all the individuals where it had been examined. So late even as the time of Camper, the figures, in both Euſtachius and Haller, which were thought to be confirmed by theſe ſhadows of actual obſervation, are appealed to as evidence, that the high diviſion of the humeral artery does not exiſt, or occur but ſeldom. The truth however is, the high diviſion occurs ſo often, that we can hardly, with any propriety, call it an anomaly, or preſume to mention the place or manner of the diviſion that are common to the ſpecies.

" By the humeral artery, or the humeral portion of the brachial artery, we are ſimply to underſtand that continuation of the axillary portion, from which the three arteries of the fore-arm, the radial, the ulnar, and the interoſſeal, derive their origin:—the place and manner of that origin to be left undefined, as theſe differ in different individuals. In a rare inſtance, which I have ſeen, and which is ſtill preſerved in my collection, the three arteries ſpring up together at the bend of the arm. But if one of the three ariſe ſeparately, as is generally the caſe, then the humeral artery, or what I would call the humeral artery, will afterwards terminate in the other two. Thus, for example, if the radial artery ariſe firſt, the humeral artery will terminate in the ulnar and interoſſeal; if the ulnar artery ariſe firſt, the humeral will terminate in the radial and interoſſeal; or, if the interoſſeal ariſe firſt, the humeral will terminate in the radial and ulnar. The firſt caſe is common, the ſecond is frequent, but the third is rare.

" In all caſes, the humeral artery is immediately under the integuments and faſcia, ſituated on the ulnar ſide of the biceps; the ulnar, alſo, and interoſſeal, when they riſe high, regularly continue on the ſame ſide. Nay, even the radial, when it riſes high, ſeldom, if ever, croſſes the biceps, till that muſcle ſends off the tendinous aponeuroſis, which generally, if not always, protects this artery, as it paſſes obliquely to its own ſide. Whatever be the branch, alſo, of the fore-arm, that is ſent off in the region of the humerus, it is never ſeparated far from the trunk. Of the three, however, the ulnar, from its running occaſionally *peripherad* of the faſcia, is that which admits of ſeparation to the greateſt diſtance. The ſeparated branches run parallel, or nearly parallel, to the courſe of the trunk, as far as the diſtal extremity of the humerus, unleſs that branch be the radial artery, arising from the ulnar side of the humeral, in which case it crosses the trunk on the *dermal* aspect, to assume its regular place on the fore-arm.

"After examining a variety of arms during dissection, comparing more than thirty-four dried preparations, and reading the angeiological descriptions of most of the writers since the days of Eustachius, I cannot discover, among all the branches that are ramified between the axilla and fore-arm, any that, in strict propriety of language, can be called regular. The PROFUNDA HUMERI, the ARTERIA NUTRITIA that penetrates the bone, and the branch styled the RAMUS ANASTOMOTICUS, being regular only in a limited sense, when compared with the others that have still less of the uniform character." p. 96—106.

The quotation now made, will serve as a fair specimen of Dr Barclay's style, manner, and views. Besides the many historical and critical observations with which the dryness of description is relieved, the value of the work is frequently enhanced by the introduction of physiological and practical remarks connected with his subject. We need scarcely add, that we recommend this work to the student of anatomy; and although we wish that Dr Barclay had introduced his new nomenclature more sparingly, and only where common language was ambiguous and insufficient for his purpose, we must confess, that we became sooner familiar with his new terms than we expected.

II.

An Inquiry into the Process of Nature in repairing Injuries of the Intestines; illustrating the Treatment of Penetrating Wounds, and Strangulated Hernia. By BENJAMIN TRAVERS, Demonstrator of Anatomy at Guy's Hospital, Surgeon to the Hon. East India Company, and to the London Infirmary, for Diseases of the Eye. London, 1812. 8vo. pp. 374.

WE have perused this volume with great satisfaction. The ingenious author has establishsd several very important points, and has every where shown himself to be possessed of great acuteness, observation, and industry. We proceed to give a summary of the contents of the volume.

Mr Travers divides injuries into two classes; those which have an inherent power of redress, and those which tend to inevitable destruction. The imperfection of this classification is obvious; but it is of little consequence to the character of a work, whose object is to ascertain the plan and limit of the operation of nature in an important class of injuries, to compare the facts of history with the results of experiment, and from these sources to derive a rational and consistent theory of treatment. To this inquiry he was led, by observing the numerous examples of spontaneous recovery from wounds of the intestinal canal and mortified hernia; our ignorance of the process which Nature adopts on these occasions; the frequent failures of the contrivances of art; and the diversity of opinion which distracts the practitioner. In having recourse to experiments on animals to elucidate his doubts, our author controverts the opinion, that the difference of economy in animals of different species, does not warrant the transferency of the results of experiments performed upon one to another, by affirming that the points of analogy in the general structure and functions of all animals of the same class infinitely preponderate over the points of difference.

In the arrangement of his inquiry, he proceeds from the most simple to the complicated forms of injury; and the first important question of which he treats is, "Whether wounds of the intestines be followed by effusion of their contents into the abdomen?" The prevalent opinions, that effusion from the intestines in whatever degree is fatal, and that it is the uniform consequence of a wound, place the practical importance of this question in a strong point of view, as, in our author's opinion, the latter of these assertions is contradicted by dissection, and by the fact, that persons have recovered from wounds of the intestines, as proved both by the direction and depth of the wound, and by the discharge of blood upwards and downwards. These leave no doubt that effusion of their contents is by no means a necessary consequence of injuries of the intestines, inflicted by accident, or intentionally for the sake of experiment.

In the second chapter, Mr Travers treats of the adhesive inflammation of the peritonæum, of which a breach of continuity, and a violent separation of parts naturally in opposition, are two powerful exciting causes. The influence of the latter circumstance is so great, that Mr T. says, "If the intestine when protruded, be gradually and softly returned in its natural order, it recovers position and function without much consequent inflammation. If, on the other hand, it be put back in the mass, without attention to the course of the canal, its organic function is suspended, and it becomes an irritant. Inflammation rapidly supervenes, lymph is effused in flakes, and the folds are universally agglutinated." We need scarcely call the attention of our readers to the practical application of this remark. From experiments made to ascertain the mode of reparation adopted by nature in penetrating wounds unattended by exposure of the gut, and from observations which have occurred in practice, Mr Travers ascribes the happy termination in a great measure to the mechanical constitution of the abdominal *cavity*, as it is called, in which the outer surfaces of its contents are everywhere in contact with each other, or the inner surface of the containing parts, so that in point of fact there is no cavity.

"From these details it appears, that further essential advantages are derived from the absolute fulness of the abdomen: that it not only prevents effusion, but provides the means of restoration; that the process of spontaneous reparation essentially depends upon the indefinite extension of the peritonæum, (by which membranous surfaces, identical in their organization and properties, are everywhere opposed), and upon its disposition to assume the adhesive inflammation. Thus, if a bowel be wounded lying in contact with the peritonæum of the muscles, it repairs itself by the mutual adhesion of the cut surfaces; another, more distant from the parietes, contracts a close adhesion with the contiguous fold, or lays hold of the adjacent omentum.* If the wound is an orifice from loss of substance, it is never obliterated by the deposition of new matter, but by the permanent close adhesion of the surface applied to its margin; if on the contrary it is simply a division of substance, as in a clean cut wound, the sides may unite *per se*, without contracting any surrounding adhesions, as happened in the instance of the sailor before mentioned; in which case it appears probable that the cicatrix will escape detection."

The real danger of simple intestinal wounds, depends upon the inflammation not being circumscribed to the immediate vicinity of the injury, but becoming diffused and extensive. The former is salutary, and the process by which nature repairs the injury; the latter proves destructive, either by tending directly to gangrene, or in healthier subjects in the adhesive stage. Effusion of bile, urine, or feculent matter, prove uniformly fatal, by their irritating quality exciting inflammation; but effused blood does not irritate until it become decomposed, and may be removed with success. The practical inferences which Mr Travers has drawn from his consideration of this subject, is to assist the salutary processes of nature by total abstinence from solid food, allowing no nourishment but drink of easy absorption, given very sparingly and at long intervals, with a rigid preservation of the supine posture, continued as long as such treatment is indicated, together with early, free, and repeated blood-letting, general and local, without any fear of reducing the power of the system below the means of reparation.

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* "'It does not seem necessary,' says Mr Hunter, 'that both surfaces which are to be united should be in a state of inflammation, for the purpose of effecting an union; it appears only necessary that one should be in such a state, which is to furnish the materials, viz. to throw out the coagulating lymph, and the opposite uninflamed surface accepts simply of the union.''' p. 252.

The third chapter contains the details of experiments, showing the effects of extensive wounds of the intestines; and in the fourth he has given, in addition to his own experiments, the substance of those performed by Mr Astley Cooper, Dr Thompson, Regius Professor of Military Surgery in this University, and Dr Smith of Philadelphia, on the operation and effects of ligatures and sutures in wounds of the intestines, from all of which he has drawn the following conclusion.

"1. Effusion of the intestinal matters rarely takes place in penetrating wounds. The impediment to effusion consists, first, in the resistance which the mechanism of the abdomen opposes, and secondly, in the circumstances contingent upon and peculiar to intestinal wounds. By the former statement I mean the general contact and equal pressure before explained; by the latter, the processes of eversion, contraction, and peritoneal adhesion.

"2. Effusion of the intestinal matters more readily takes place from lacerated and ulcerated apertures, because in these the combination of the causes of impediment is destroyed.

"3. The uniform contiguity of the peritoneal surfaces, and the ready disposition of these surfaces to assume the adhesive inflammation, are the means provided by Nature for the reparation of intestinal wounds and injuries.

"4. By these means punctured and small incised wounds, transverse or longitudinal, and apertures from excision of substance, readily admit of spontaneous cure.

"5. It is even possible under certain conditions, that, after a wound by which the intestine is half divided, the tube may be imperfectly restored upon the same principle; but wounds amounting to a *direct* division of the canal are irreparable, and therefore invariably fatal.

"6. Where the division is *indirect*, as by the operation of a stricture, natural or artificial, the injury admits of speedy and perfect recovery.

"7. Where a ligature includes a portion of the paries intestinalis, the process of reparation is precisely similar to that which takes place where no ligature is employed, viz. the adhesive inflammation margining the ulcerated wound in one case, and the simple incised wound in the other, attaches the adjacent peritoneal surface.

"8. Ligatures of every description, unconfined at the external wound, separate into the canal and pass off with its contents; not from any law of the economy, which has been adduced in explanation of some similar invariable phenomena of which the cause was not obvious, but from their speedy and complete investment by the uniting medium.

"9. The union of a divided bowel requires the contact of the cut extremities in their entire circumference, effectively to resist the muscular action opposed to an artificial connexion during the process of union. The species of suture employed is of secondary importance, if it secures this contact.

"10. The mode of reparation, adopted in those wounds of the intestines which are connected by artificial means, proceeds upon the same uniform principle as is exhibited in spontaneous repairs. But the effect is varied, inasmuch as retraction of the divided parts being in the former prevented, the cylinder of the intestine is preserved by a process of independent union, whereas, in the latter, the union is effected entirely by the medium of surrounding parts." p. 132—135.

Our author now proceeds to the practical application of the results of the preceding chapters, to complicated wounds attended by feculent discharge; and from the consideration of many cases upon record, he concludes, that the intestinal aperture retains its opposition to the peritoneal wound; that the free egress of matters by the wound prevents obstructions in the canal, and consequently relieves the patient from the local and constitutional disturbance, of which obstruction is a never-failing cause; that the passage of the matter by the wound, does not in any degree impede the subsequent efforts of nature to restore the canal; and that the injury carries with it the means of redressing an inflammation sufficient for its reparation. In wounds of the belly accompanied by prolapse, if the intestine be not wounded, it is to be carefully reduced inch by inch; but where the intestine is also wounded, Mr Travers strongly recommends the following practice, and upon grounds which appear to us decisive.

"Let a small round sewing needle, armed with a silk thread, be passed near to the lines formed at the bases of the everted lips. The thread is to be carried at short regular distances through the whole extent of the wound, the operator being mindful that an equal portion of the edges is included in each stitch. When the suture is finished, let the thread be securely fastened, and cut close to the knot. The reduction of the prolapsed fold should then be conducted with the nicest caution; and when completed, the wound of the teguments should be treated with a stitch, a plaster, or a poultice, as circumstances dictate.

"The practice embraces two points. 1st, The accurate closure of the intestinal wound, by which the case is reduced to one of simple prolapse. 2d, The careful reduction of the protruded part, and the union of the divided integuments. The treatment of the two wounds is thus made perfectly distinct; and I contend that this distinction, by which the practice is materially simplified, is indicated by the facts on evidence, viz. the independent restoration of the cylinder, and the provision made for the ligature in that process. The principle of a preternatural connexion between the bowel and the tegument where the union is obtained by the suture, upon which all writers have insisted as essential, is a false one; if it were not, a depending ligature would be nugatory; but whoever will carefully examine the process of restoration, will come to the stronger conclusion, that it is injurious, and in direct violation to the procedure of Nature." p. 188, 189.

This chapter concludes with a few observations on artificial anus as a consequence of wounds. Our author then proceeds to the consideration of strangulation, primary and secondary, of the intestines, and the mode in which it produces death. He imitated the former by making a tight ligature upon the protruded gut, and the latter by drawing a loop of intestines through a small muscular orifice. In the former, sphacelus is rapidly induced, the gut bursts and discharges the contents of the upper bowels. This gives immediate relief, and an artificial anus is formed; and though the experiment is ultimately fatal, the peritoneal surface invariably remains healthy. In the latter, inflammation of the strictured bowel is produced, and if the obstruction be complete, the animal dies of general peritoneal inflammation. To discriminate between the effects of the obstruction and of the local injury, our author combined these experiments in a third, which he considers as proving that the obstruction, and not the local injury, is the cause of peritoneal inflammation.

> "A loop of intestine, four inches long, was drawn through a small incision of the parietes; the anterior half was strangulated by a tight ligature on the outside of the integument, which was then sewed close around it; and the remaining two inches were left to inflame in the space between the muscles and the skin. The slough of the strangulated part speedily followed, and suffered the matters to pass externally. The animal lived a week, and then sunk under the drain from the wound.
>
> "*Examination.*—The intercepted portions of bowel were highly inflamed, and their contiguous surfaces adhered; the sloughs were detached by ulceration in the line of the ligature; but all within the abdomen appeared healthy.
>
> "This experiment proves that inflammation of the strictured gut, when existing in the greatest degree, does not spread into the abdomen or extend above the stricture, so as to affect the peritoneal surface." p. 207, 208.

In further confirmation of his opinion, Mr Travers details some cases communicated by Dr Babington and Dr Farre, in which the characteristic symptoms of strangulated hernia were the effects of intestinal obstruction from other causes; and he quotes the fact, that frequently, although the operation be dexterously performed, and the intestines reduced before any appearance of mortification, there is no remission of the urgent symptoms, owing, in his opinion, to the obstruction continuing in consequence of a paralytic state of the strangulated portion of gut.

The two last chapters treat principally of partial strangulation and mortified intestine; and we shall terminate our analysis of this very instructive volume, by extracting our author's summary of the treatment which he recommends.

"1. A strangulated intestine must be in one of two states, viz. recoverable or irrecoverable. The former includes the inflamed; the latter the mortified state. Where disorganization has not commenced, or, having commenced, is superficial or circumscribed, the bowel may be returned under the restrictions before advised. Fomentations and glysters must be had recourse to immediately, and a mild purgative be exhibited, in the least offensive form, as soon as the irritability of the stomach has subsided sufficiently to allow of its being retained, and it should be repeated at short intervals, until bilious evacuations are obtained.

"2. Where the gangrene is general or complete, and the matters are discharged through an opening or openings in the gut, a free incision of the sac is all that appears to be required. If the spoiled gut is extensive, the surgeon may use his own judgment concerning the removal of the sloughs, for the sake of cleanliness.

"3. Where, under the same state of disorganization, the gut has not burst, and the process of sloughing has not commenced, an opening should be made near to the stricture, sufficient to admit of the discharge of the matters. If the stricture should still be sufficient to retain the matters, which will seldom be the case, a moderate dilatation of it will be required. If the discharge is scanty, and the symptoms are imperfectly relieved, a gentle laxative may be exhibited. An enema should be administered, without changing the position of the patient, night and morning. The dressings should be of fine absorbent linen, and so frequently renewed as to prevent the accumulation of bile or fecal fluid in the wound; and every precaution should be taken to preserve cleanliness, and prevent the overflowing of the bile and consequent excoriation of the skin. Bile appears essentially to promote a healthy granulation. Strong soups and animal jellies, and every variety of nutriment in a condensed but easily assimilable form, should compose the patient's diet. Of the propriety of exhibiting cordial, or tonic, or astringent medicines, I am very doubtful. The augmentation in solidity and quantity of food should be gradual; and especial care should be taken to prevent obstruction to the matters, when the wound inclines to healing, and the discharge becomes sensibly diminished. A gentle laxative, such as oil or manna, might probably be given at this time with advantage." p. 332—335.

III.

On the Operation of Largely Puncturing the Capsule of the Crystalline Humour, in order to promote the Absorption of the Cataract; and on the Gutta Serena, accompanied with Pain and Inflammation. From the Third Edition of Observations on the Cataract and Gutta Serena. By James Ware, Surgeon, F. R. S. London, 1812. 8vo. pp. 26.

In the former editions of Mr Ware's Works, several cases were inserted of persons having recovered their sight by the opaque crystalline lens being absorbed without the necessity of performing any operation. These papers are omitted in the third edition; and the observations now before us are introduced to point out a method by which the absortion may be promoted, not only in cases of cataract subsequent to an external injury, but also in those cataracts which come on in infancy, and in congenital cataract. This method consists of an operation, which has, of late years, been strongly recommended in all cases, the puncturing the capsule of the lens with a needle, and, instead of depressing the cataract, the endeavouring to break it down, and leave the fragments to be absorbed in the aqueous humour. This mode was first recommended by Mr Pott, in cases of soft or fluid cataracts, where they cannot be depressed, and has of late years been strongly recommended in all cases by Professor Scarpa and Mr Hey of Leeds. It gives us much pleasure to find that the author, though he recommends this mode in the cases of cataract in early life, still gives a decided preference to the operation of extraction, which we have repeatedly pointed out to our readers as unquestionably the best mode of removing the disease in the adult. Mr Ware, speaking on this subject, remarks—

"To this indiscriminate preference, however, I cannot accede; being fully persuaded, that though, in the cases of young persons, and particularly of infants, the operation of largely puncturing the capsule, and breaking down the substance of the opaque crystalline, possesses considerable merit, yet when the cataract attacks adult and aged persons, the operation of extraction, if well performed, has greatly the advantage over it."—p. 5. And again, p. 9, "The experience of more than thirty years authorizes me to entertain a much higher opinion of the operation of extraction, and to express a decided preference of it, when the disorder attacks adult persons and those who are aged."

In performing the operation of puncturing the capsule of the crystalline humour, great benefit is derived from the artificial dilatation of the pupil by means of the extract of belladonna. Though the singular property possessed by this, as well as by other narcotics, was first pointed out in London by the late Mr Sanders, it has been long known on the Continent, and we recollect having seen an operation for cataract performed a dozen of years ago, where the belladonna had been previously applied. Of late years it has been more particularly noticed by Professor Himly of Jena, * and the late Professor Schmidt of Vienna, who gave a preference to the hyoscyamus extract, as being less stimulant when applied to the eye itself, and as its effects are confined to the iris, whereas those of the belladonna sometimes extend to the retina. The dilatation of the pupil by means of the belladonna, may be caused by its internal use, but it is produced with more certainty by rubbing a little of the extract on the eyebrows, or applying it to the eye diluted with water, by means of a hair pencil.

The instruments used in this operation are Pellier's elevator for the upper eyelid, which is always necessary in the case of infants, though, when the patients are beyond that age, the author observes, it may sometimes be dispensed with, and the eye fixed by the fingers above; a needle resembling that of Mr Hey, except that its extremity is pointed, and it cuts on one side for the space of about the eighth of an inch; the other side is blunt; it is about an inch long, and should form a complete wedge through its whole length. The pupil having been previously dilated by the application of the belladonna, half an hour before, Mr Ware thus describes the steps of the operation.

" The patient being either seated on a chair of a suitable height, or placed on a table with the head properly raised on a pillow, the bent end of the speculum should be introduced under the upper eyelid, and the instrument committed to the care of an assistant. The eye being thus fixed, the point of the narrow bladed knife above mentioned should be pierced through the sclerotica, on the side next the temple, about the eighth of an inch from its union to the cornea, with its blunt edge upwards; and it should be pushed forwards in the same direction until so much of its blade has entered the eye, that its point has nearly reached the crystalline. Its point should then be brought forwards, until it has passed through the opaque crystalline and its capsule, and is plainly visible in the anterior chamber of the aqueous humour. The future proceedings must be governed by what now occurs. If the cataract be fluid, and the anterior chamber become immediately filled with the opaque matter, it appears to me adviseable to withdraw the instrument, and defer further measures until the matter be absorbed, which absorption usually takes place in the course of a few days, and sometimes of a few hours. If no visible change be

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* Ophthalmalogische Beobachtungen.

produced in the pupil, the point and cutting edge of the instrument should be applied in different directions, so as to divide both the opaque crystalline and its capsule into small portions, and, if possible, to bring them forwards into the anterior chamber. This may require the instrument to be kept in the eye for a minute or two; but, if the operator preserve his steadiness, he may continue it there a much longer time, without doing the least injury to the iris or any other part. If the cataract be found of a firm consistence, (though this rarely happens in young persons), it may be advisable to depress it below the pupil; and in such a case, particular care should be taken to perforate largely the posterior part of the capsule, and to withdraw the instrument immediately after the cataract has been depressed, in order to hinder it from rising again. If the opacity be in the capsule, the instrument will not act so easily upon it as it does on the opaque crystalline; but, notwithstanding this, the capsule, as well as the crystalline, may be divided by it into larger or smaller portions; which portions, when thus divided, will be softened by the action of the aqueous humour; and though, in the first operation on such a case, it may not be possible to remove the opacity; yet, on the second or third attempt, the divided portions may be brought forwards into the anterior chamber of the aqueous humour, in which place they will then be gradually absorbed, and will soon disappear." p. 11–14.

In performing this operation, Mr Ware is farther of opinion, that the surgeon will operate with more composure if the patient is laid on a table, than if he be placed in the erect posture on a chair, and this will be found particularly proper where the patient is an infant, and his steadiness cannot be depended on; and, of course, if the right eye is the subject of operation, and the surgeon operate with his right hand, he must sit behind the patient; and, in that case, will manage the speculum with his left hand, while an assistant depresses the under eyelid. If symptoms of inflammation come on after the operation, or the patient suffer much pain during its performance, the antiphlogistic regimen should be rigidly observed; for we have found, in all operations for cataract, that the success is more frequently prevented by inflammation than any other occurrence; though the author remarks, that he has never once had occasion to take blood from infants, and very rarely in persons under twenty years of age. The patient should be kept in a dark room, and the eye guarded against a strong light by a compress of linen dipped in a weak saturnine lotion, for a few days after the operation. At the end of ten days, the inflammation is generally gone; and if the opaque matter be observed still to obscure the pupil, it is recommended to repeat the operation in the same way, endeavouring to bring the opaque portion into the anterior chamber. Mr Ware observes, that in the greater number of cases that have come under his care, the operation has been repeated twice; in a few the cure has been completed the first time; and in only three out of the last twenty has it been requisite to repeat the operation a fourth time. Instead of these frequent repetitions of the operation, we are of opinion that it would be much better to follow the mode recommended by the late Mr Gibson of Manchester,—after the first operation with the needle, to make a small incision in the transparent cornea, and to extract the opaque portions through it; as in that way their removal may be in general effected at once, and because it is attended with less danger and irritation to the eye, and occasions less pain to the patient.

Mr Ware concludes the account of this operation by remarking, in a note, that he had been informed that the late Mr Saunders punctured the cornea instead of passing the needle through the sclerotica. This operation was proposed in the year 1797, by the late Dr Conradi, and repeatedly practised by Dr Beer, and other oculists, with various success; but, in cases of adults, cannot be brought into comparison with the operation of extraction, and on that account is now generally laid aside, though it might be of great benefit when the crystalline is decidedly fluid, being attended with much less pain than the usual mode of performing depression.

On the Gutta Serena accompanied with Pain and Inflammation.

It not unfrequently happens, that patients labouring under amaurosis, or insensibility of the retina, are subject to attacks of inflammation of the eye, which the author considers to be of a peculiar kind, and not removeable by the ordinary means. From having observed an effusion of lymph between the choroid coat and retina, in cases of gutta serena, after death, Mr Ware was led to try the effect of puncturing the ball of the eye through the sclerotica, with a grooved needle, and in many cases it has been attended with beneficial effects. As these cases are not of frequent occurrence, we shall select one of Mr Ware's, as the best description of his method of treatment.

"Mr G. of Chippenham applied to me, in the latter part of November 1810, on account of an inflammation of the left eye, which had been accompanied, upwards of three weeks, with a most violent pain both in the head and eye; the sight having been previously lost by a complete gutta serena. A great variety of evacuant and anodyne remedies had been employed, both externally and internally, by his medical adviser in the country, without affording lasting relief. In this instance, suspecting a fluid to be effused between the choroid coat and retina, I immediately made a puncture through the sclerotica with the grooved needle above mentioned; carrying the point of the instrument about three-eighths of an inch into the ball of the eye, a little further back than the part which is usually punctured in the operation of couching. A considerable quantity of a watery fluid, evidently different from the vitreous humour, issued immediately through the groove of the instrument. The operation gave considerable pain, and it did not wholly cease for two hours; but afterwards the patient fell into a sound sleep, and awoke much refreshed, and quite easy." p. 18–20.

Mr Ware also mentions two cases of recent blindness, attended by a dilated pupil, without any pain or inflammation, where the patients recovered their sight by means of puncturing the eyeball; and he remarks, that the fluid discharged appeared to be merely the vitreous humour, scarcely in a diseased state. Particular care should be taken to direct the point of the instrument so as not to wound the capsule of the crystalline, which accident might occasion an opacity of that humour.

Mr Ware concludes these observations by stating, that, in cases of closure of the pupil after an unsuccessful operation of extracting the cataract, he has repeatedly succeeded in making a new pupil according to Cheselden's mode, the fibres of the iris retracting after they were divided, and leaving an opening very nearly of the natural size of the pupil.

IV.

BIONOMIA. *Opinions concerning Life and Health, introductory to a Course of Lectures on the Physiology of Sentient Beings.* By A. P. Buchan, M. D. of the Royal College of Physicians, London. Small 8vo. pp. 119. London, 1811.

We have been amused by the perusal of this little well-written volume, which exhibits a neat sketch of the general facts connected with the existence of animal life. But we doubt whether it be calculated to accomplish one of the purposes which the author appears to have in view, to wit, that of seducing the unprofessional inquirer into the path of physiological science, and of teaching him, physically as well as morally, to *know himself*. For, independently of the difficulty of conveying information to minds that have "not been, in some measure, already awakened to analogous trains of thought," which the author has acknowledged in his preface, the brief and aphoristic style, and the abstract form, in which he has chosen to inculcate his opinions, appear to be ill adapted to interest the novice, or to facilitate his comprehension of the arrangement and connexion of the facts, from which the laws of life are deduced. Nor are we satisfied with the author's reason for choosing this method; namely, his despair of attaining geometrical accuracy, which he alone deems worthy of the appellation of *reasoning*. For, although the close connexion and dependence of every step in the progress of the science may not be thus clear; yet the general laws are equally the result of an arrangement of facts, according to the real or apparent relations; and therefore the connecting medium should not be broken, but maintained as far as it is practicable. Perhaps, however, this is rather the task of the lecturer in his subsequent course, than in an introductory sketch.

The operations of nature, the author observes, consist of a series of changes, effected by the motions of matter, which arise from two sources—gravitation or mutual attraction, and life; the origin of both of which is inscrutable by man, whose sole knowledge is confined to the observation, arrangement, and comparison of the changes produced. The inference of the existence of *mind*, as distinct from matter, and as producing the commencement of those motions, which our author ascribes to "an instinctive principle" in man, is surely a deduction from observation of the necessary agency of his own mind, or of some other self-moving or sentient being, in giving rise to similar motions or changes; *i. e.* of the necessary agency of a *cause* in every change. He affirms, with Tucker, that mind and matter appear to be equally durable, and alike incapable of increase, diminution, or annihilation; a conclusion which is by no means so clear, being an inference from an inference, and not from direct observation.

In his idea of *life*, Dr Buchan includes only animal or sentient life, although many of the phenomena of the vegetable world, their generation, growth, organization, secretions and excretions, and their resistance to surrounding agents of decomposition, have justly caused them to be ranked among beings possessed of life. In the very definition, which the author has quoted from Linnæus, to prove that "the presence of life is indicated by sensation," it is said, "vegetabilia crescunt et *vivunt.*" The author is of opinion, it should seem, that there is a "principle of life" *superadded* to organized bodies, "to which it imparts activity," and with which its connexion is only temporary: of the existence of which, however, independently of organized matter, we conceive there is no evidence; and its superaddition to vegetable bodies is an equally necessary supposition, if the phenomena just enumerated are to be attributed to such a principle in any case.

After speaking of the phenomena of animal life, which the author ascribes to the vital principle, viz. the functions of digestion and secretion, and the necessity of communication with the air, which constitute what are thence called the *vital* functions;—of sensation, by which animals are connected with external nature;—and of the appetites and instincts, by which they supply themselves with food, and multiply their species, being furnished with various organs of locomotion, &c. for the fulfilment of these purposes, and with organs of defence for the preservation of their young;—the author informs us, that man is possessed of a *second* superadded principle. "In addition to the sentient principle, by which the animal is distinguished from the vegetable, man is moreover endowed with a rational soul, *manifested* by the significant sign of articulate speech," immediately inspired by the Deity, and "manifest in the expression of his countenance—the image of God." The faculties of other animals are all, it seems, resolvable into the principle of life, and, in our author's opinion, differ *in toto* from those of man.

"The senses only transmit particular notices; it is the mind which infers the existence of a whole. That which appears merely a coloured surface to an animal, to man presents an intelligible picture." p. 11.

We shall not enter into any discussion upon these delicate points, which in fact are inscrutable; but we cannot express our approbation of this philosophy. The last observation is contradicted by the experience of every day, as far as any conclusion can be drawn upon the subject: and however we may admit the limited and unimprovable nature of instinctive propensities; yet to deny the acquisition of knowledge (which implies the faculties of association and memory, as well as of attention and perception) to the dog, the horse, the elephant, &c. is in our opinion impossible. To all intelligible appearances the dog has the same notion of the solidity of the stick held up to beat him, or of the meat offered him to eat, as ourselves, inasmuch as he acts just as man would act under the same impressions. We know not where the line is to be drawn.

"νους ορη και νους ακουει. τ᾽ αλλ᾽ κωφα και τυφλα:" Our author adopts the doctrine—"It is the mind that sees and hears," &c. Where, then, is the distinction between the two "principles," which our author separates? It is true, indeed, that "to man alone is given the capacity of comparing the relations of matter, space, and time, by means of weight, measure, and number."—p. 12. "*And man, the chief of animals, touches the earth with little more than the termination of his inferior extremities.*" p. 15. His superior faculties are abundantly obvious: but the lower animals "see and hear," and possess faculties which are entirely distinct from the ordinary suggestions of what has been called instinct.

Dr Buchan traces, with a rapid hand, some of the other peculiarities of organized life,—its power of resistance to the ordinary influence of chemical and mechanical agency,—and the difference in the ratio of animal action and the intensity of the stimulus which excites it, when compared with mechanical motion, and its cause. And he observes, that the necessities of mankind having led them to the earlier cultivation of the mechanical sciences, the laws of physical causation were too readily transferred to the actions of living and reasonable beings; and thus, much erroneous reasoning, both respecting the health of the body and the principles of human conduct, has been produced, p. 18. Hence the study of physiology has been chiefly confined to professional men, to whom *mysterious* knowledge was therefore ascribed by the people in days of ignorance, and many of whom indeed have thought it their interest to pretend to possess it: so that "in all times," as Lord Bacon remarks, "in the opinion of the multitude, witches and impostors had a competition with physicians; and the ancient poets were clear-sighted in discerning this extreme folly, when they made Æsculapius and Circe both the children of Apollo." p. 20.

"Wonder," Dr Buchan well observes, "is the offspring of ignorance. When a phenomenon can be explained, *i. e.* referred to some general law of nature, with the operation of which we are already acquainted, men cease to wonder. But as the laws of life have never yet become the object of general attention, mankind in former days believed certain diseases to be the acts of evil spirits, as at present they are inclined to attribute their cure to any mysterious and unintelligible influence, rather than to the sanative powers connected with the vital principle. Hence the belief that so long prevailed of various complaints being removed by the *touch* of certain individuals, plebeian as well as royal; the implicit faith in the tricks of animal magnetism, and the more recent imposture of metallic tractors. The grossness of these and many similar impositions, proves that the credulity of the multitude is by no means in proportion to the craft of the impostor, but in the ratio of their own ignorance." p. 22.

The only efficient mode of eradicating empiricism, and of obviating the extensive mischiefs of medical imposture, the author remarks, is the same which has been successful in emancipating other departments of human knowledge from the trammels of imposition, and the dominion of ignorance. Judicial astrology, and the shackles under which the human mind was held by its professors the soothsayers, &c. have been annihilated before the light of astronomy: natural philosophy has banished the terrors of spectres, and demons, and witches, which terrified our ancestors; and the golden dreams of alchemy have vanished under the improvements of modern chemistry. And as religion has become the subject of general investigation, the improvement of the human mind has been great, nor has that of morals been less conspicuous. We therefore unite cordially with the author in his votive exclamation, "May the efforts, unparalleled in any age or country, now making to impart the advantages of education to the youth of all classes of society, succeed in still farther promoting these desirable objects!" p. 26.

The author expresses his conviction, then, that were the study of the nature and laws of the vital powers more generally pursued, the control assumed by man over the functions of the animal economy, in a state of health and disease, would be more correctly appreciated;—"pretensions to work miraculous cures by concealed and apparently inadequate instruments would be exploded,—a just confidence in the healing energies of nature, under the guidance of science instructed by experience, would take place of the present prevalent belief in the potency of drugs,—and the art of preserving health, and of treating disease, would truly deserve to be considered as a department of liberal science," p. 27.—"The respectability of the profession in general will thus be augmented, and the members of it will be induced to study their occupation with more diligence, when they find success to be connected with liberal conduct, real information, and sound judgment. As the rewards and honours of medicine are now distributed, the physician may often, with too much truth, apply to himself the words of the preacher: *For if it befal me even as it befalleth the fool, why should I labour to be more wise?*" p. 28.

The author illustrates these opinions in the subsequent part of the volume, as well as in the notes at the end of it, which display a good deal of curious reading and liberality of mind; but which we have not room to follow.

Dr Buchan differs *toto cœlo* from his celebrated father on the subject of "domestic medicine," which he believes must ever prove abortive; nay more, he seems almost disposed to deprecate all active medicine, as we shall see presently; but he justly observes, that instructions respecting the "domestic *management*" of the sick have been the result of the study of the laws of life among physicians, and have much diminished the evils of disease.

> "In proportion as rational doctrines of medicine are diffuſed, will the domeſtic management of the ſick be improved. The admiſſion of freſh and cool air to the chambers, and the application of clean linen to the perſons of the ſick,—more ſtrict attention to cleanlineſs and ventilation,—the refreſhing affuſion of cold water in certain ſpecies of fever, although now familiar proceſſes, are all modern improvements, introduced with much difficulty by the more enlightened practitioners of medicine, in direct contradiction to prevalent habits and opinions. The dread of infection, ſo frequently a bar to the duties preſcribed by charity and by love, has alſo been greatly diminiſhed, in conſequence of the nature and limits

of contagion being better ascertained. Much, however, yet remained to be done, especially in impressing the minds of persons labouring under chronic diseases, with a due sense of the importance of submitting to a proper regulation of regimen, which is often a matter of no less importance than even the administration of medicine," &c. par. 64.

"By the ancients, medicine was cultivated as a branch of philosophy, which professed not only to alleviate present pain, but also to teach the means of protracting the existence of a sound mind in a sound body. Galen asserted, that by appropriate regimen he could effect a total change in the physical temperament of the body, and even alter and improve the disposition of the mind; and the celebrated Asclepiades solemnly engaged to renounce all claim to the title of physician, should he ever become the victim of disease; and, what is more extraordinary, he lived to redeem his pledge;—for, after having attained the age of an hundred years, he died in consequence of a fall. A death, which, though accidental, could hardly be termed premature." § 65.

On the subject of the extent and advantages of "prophylactic medicine," our author's opinions seem to have acquired some distortion, in consequence of long attention to his own peculiar temperament, which is "readily disordered by every slight irregularity, but possesses the power also of quickly rectifying itself by due attention to external circumstances." They are not, if we do not misapprehend them, corroborated by observations made upon the constitutions of men in general. He seems to be disposed to maintain, as far as we collect from several passages, that the active interference of art, at least in the internal administration of drugs, is not merely useless, but dangerous. Thus, after quoting the observation of Sydenham, that acute diseases are mostly derived from God, and chronic diseases from ourselves, and observing that active remedies are required for removing the former, he adds—

"But when it is considered, that all drugs, improperly administered, prove poisons, (though, unfortunately for the good of mankind, the converse of the proposition is not equally true, for all poisons are not remedies), and that the preparation of these instruments of cure can hardly be depended on from the hands to which that process must necessarily be committed; a conscientious man need not be ashamed of acknowledging some feelings of compunction, under the serious responsibility of *tampering with human life*, by means, with the nature of which he is so imperfectly acquainted." par. 72.

It can scarcely be matter of surprise, that Dr Buchan should deprecate the use of medicine in the hands of the uninformed, when, even under the direction of the best physician, he deems the administration of medicine to be nothing better than "tampering with human life." This, however, is not the only piece of satire against his art, which he has written: but the following passage has so little of the semblance of the usual good sense of this volume, that we can scarcely suppose it to have been penned in a serious mood. After stating, that the great modern improvements in practical surgery are founded upon the general conviction, that external injuries are only to be healed by removing all obstacles to the sanative process of the vital powers of the constitution, he remarks, that the same opinion does not prevail, respecting the means of curing the diseases which come under the management of the physician.

"This diversity of opinion," he observes, "respecting the treatment of external and internal diseases, may, in part, depend on the injurious consequences produced by medicines received into the stomach not being quite so obvious as the mischiefs attendant on the improper use of topical remedies; and partly on that unfounded confidence of the sick in the efficacy of drugs, arising from the interested misrepresentations of those who profit by the administration of them. The conceit that the works of nature cannot go on without the interference of man, borders almost on impiety. Is it credible, for example, that a human infant should be so imperfectly organized, that it cannot pass over the years of childhood, naturally the most healthy period of life, except the biliary system be ever and anon expurgated by calomel? or that the early and habitual use of this mineral poison can be unattended with injurious consequences? Perhaps the time may come, when the most judicious plan of curing internal as well as external complaints, will be acknowledged to consist in removing all impediments to the natural exertions made by the vital energy to restore health. *Natura parendo vincitur.*" par. 71.

Such hypothetical notions might arise in a mind, which had merely speculated on "the philosophy of life," the inquirer having forgotten that the phenomena of diseases, and the influence of external agents, should also be fully examined, before that philosophy could be perfect. But that a physician, accustomed to the contemplation of diseases, as well as to physiological researches, should adopt such views of the subject, is somewhat inexplicable. The assertion, in the first place, that the period of childhood is naturally the most healthy, is surely made in direct contradiction to the observation of all physicians and historians, and to every record of human mortality that is extant. The facility with which the infantile frame is disordered by the slightest causes, is more than a counterbalance to the greater *number* of the causes which bring on disease in the adult: hence the severe fevers arising from dentition, the perpetual derangements of the alimentary canal from slight changes of diet, &c.; insomuch that one third of the human species is cut off before the end of the second year. And is not the inference, that a substance which, under certain conditions, is poisonous, must therefore under all conditions be "attended with injurious consequences," a mere gratuitous supposition, which is contradicted by the general experience of mankind? After having witnessed, in hundreds of instances, the rapidity with which health is restored to children, in many of their diseases in which the excretions of the bowels are deranged, by these purgative minerals, would it be philosophical to let our suppositions overrule the clear results of observation? Our author has strongly recommended, in a passage adopted from Professor Robison, the study of *final causes* in all our investigations of nature. Upon his own principle, then, he must admit the probability, that these active agents on the living frame (of the remedial effects of which we have fully as much evidence as of their poisonous qualities, according to the mode of administering them) were not produced by nature for their deleterious properties only.

But is not the concluding observation of the paragraph just quoted, a mere tissue of plausible terms, possessed of no actual meaning? In a multitude of the maladies, which we are called upon to alleviate, what is the nature and tendency of those "natural exertions" of the vital energy, to which our author supposes that we have only to remove impediments? And how is this to be effected in many cases, without the "almost impious interference" of art, which administers vegetable and mineral *poisons?* Are those "exertions," which constitute what we call disease, really salutary—always salutary? Or are they not often obviously and certainly of fatal tendency, if not interrupted by some of the "*poisons,*" by which we *can* often control them? In a fit of colic, for instance, can the most determined advocate of nature's unimpeded exertions suppose, that the violent spasmodic contraction of the gut is one of those salutary actions, and ought not to be interrupted by opium and calomel, or other antispasmodic and purgative drugs? Or what are, in that case, the "impediments to the natural exertions made by the vital energy," which it is the duty of the physician to remove? What are these "exertions," and what these "impediments," in all acute inflammations, in hydrocephalus, in the exanthematous fevers, in syphilis, in dropsy? In truth, these terms, which are borrowed by a loose and false analogy from the vocabulary of the *mechanist*, are inapplicable to the science of pathology. It cannot, indeed, be for a moment disputed, that every operation upon the animal economy must take place through the medium of the vital power: *Medicamenta non agunt in cadaver.* But the proposition is, in our view of the subject, not less clear, that many of the "exertions" of the vital power are dangerous from their violence, or from their tendency to produce morbid changes of structure, or exhaustion of function; and that, consequently, "the most judicious plan of curing" them will consist in interrupting or repressing their violence, by means of those physical agents, by which alone we can controul the actions of the living power, *i. e.* among other means, by mineral and vegetable medicines, however *poisonous* they may be when improperly or ignorantly employed. The most innocent of our food might be objected to on this principle; for by excess in quantity it is deleterious, and may become even destructive of life.

If there is any meaning in the doctrines upon which we have just animadverted, they seem to be a spice of that sort of philosophy, which was in vogue in moral and political matters some years ago, and was founded upon the consideration, not of man as he is, but of a certain *perfectibility* of his nature, which the philosophers anticipated with great confidence. It seems probable, that our author's views of the simplicity of medical practice, (when the whole shall be comprised in "prophylactic medicine"), will be realized at that era of the world, when mankind shall obtain a perfect control over their appetites and desires,—when the golden rule of moderation in all things shall never be infringed,—and folly shall have no influence over human actions. We do not believe that the author has any contemplation of such Saturnian times; but in such times only can his views of medical practice, as far as we comprehend them, be realized. For, as he justly observes, "the preservation of health is rather a *virtue* than an *art:*" therefore, it is obviously the perfection of virtue which he contemplates in this improvement of medicine. But if that era should ever arrive, we fear there will be little occasion for professors of physic.

"The first physicians by debauch were made;
"Excess began, and *still* sustains the trade."

And, therefore, in proportion as mankind avoided the causes of disease, and learned to banish empirics, and to put a true estimate upon the medical character, in the same proportion would the necessity for physicians diminish, and medicine would return to its pristine state, (as a branch of philosophy or general learning), from which Hippocrates has the credit of having separated it, and thus of having cleared it of many false doctrines with which it had been obscured by the speculations of the philosophers.—See Celsus, lib. 1. Pref.

V.

A Dissertation on the Bite of a Rabid Animal; being the substance of an Essay which received a Prize from the Royal College of Surgeons in London, in the year 1811. By James Gillman, F. L. S. Member of the Royal College of Surgeons in London. 8vo, pp. 181. Callow.

Those who consider the very imperfect state of our knowledge, with regard to the nature and efficient treatment of the deplorable disease which results from the bite of a rabid animal, notwithstanding the assiduity with which every case has lately been watched and recorded by medical men, will perhaps not expect to derive much important information from one of those ephemeral productions, commonly drawn up in reply to the *prize questions* of learned bodies. The honorary rewards, offered upon those occasions, are principally calculated to excite the ambition of students, who have little practical information to communicate; and these *laurelled* essays, therefore, are commonly distinguished rather by neatness of arrangement, and deductions from the labours of others, than by any actual augmentation of the sum of knowledge upon the proposed subject of inquiry. The best tendency, perhaps, of the institution of such rewards, is the direction, which they sometimes give, to the pursuits and investigations of individuals, who thenceforth adopt the subject of their early essay as the favourite object of their future observation and experiment, and thus ultimately accumulate a mass of valuable information.

This will, perhaps, be the principal advantage of the prize offered by the College of Surgeons in the present instance. But although Mr Gillman's essay cannot be said to have thrown any new light upon the obscure subject which he has attempted to elucidate, yet it is creditable to his information in respect to the known facts, and contains some additional observations from his personal investigation, respecting the morbid anatomy of rabies in brutes, which are worthy of being recorded.

He divides his essay into three sections, which treat of the characteristics of rabies in dogs,—of the treatment of the bite of a rabid animal,—and of the consequences of such a bite, respectively.

In describing the symptoms of rabies in the dog, he seems to have had before him an ample account of the phenomena of the disease, as it appears in that animal, which is given at length in Dr Rees's Cyclopædia, under the article Dog. It must be observed, on a perusal of these histories, that there is no *pathognomonic* symptom of rabies in the canine species; but that, like other febrile diseases, it occurs with a considerable variety of symptoms in different cases. In some of the instances quoted by Mr Gillman, the real nature of the disease was questioned, and doubtless very questionable; and was only presumed to have been rabies from the appearances which presented themselves on dissection. In fact, the disease in the dog appears to be, in some cases, a sort of typhoid fever, with black and parched tongue, thirst, and some degree of delirium: in others, the tongue is natural, and the saliva abundant. In all cases, the animal appears to lap water readily, though in some he does not swallow it: and there seems to be also considerable variety in the disposition to bite; the animal being sometimes, though rarely, violent, as the term *mad* would imply; but often shy, and only peevish.

The dissections have exhibited appearances not less various. In one case, furnished by Mr Carlisle, who examined the rabid dog after death, " no peculiarity of stomach, œsophagus, or intestines" was discovered, (p. 21.); while in others, quoted from the publication of Dr Beddoes, on fever, from Dr Clarke's case related in this Journal, and from other authorities, marks of inflammation in various degrees have been observed in the fauces and salivary glands, or in the œsophagus, stomach, or intestines, and sometimes in the brain and lungs. This inflammation, again, has sometimes appeared in patches, and sometimes it is more generally diffused; sometimes it has been observed in the internal, and sometimes in the external coat of the stomach; and sometimes every viscus of the abdomen and thorax have suffered from inflammation, while the head remained entirely free from any morbid change.

In a case, which occurred under Mr Gillman's observation, subsequent to the presentation of his essay to the College, the following appearances presented themselves on the dissection of the dog.

" The pia mater was slightly inflamed; the under surface of the epiglottis was also inflamed; the trachea and œsophagus exhibited no morbid appearances; the stomach contained a chocolate-coloured gelatinous-like fluid; the villous coat was very generally inflamed, and several of the rugæ were livid, and of a chocolate colour. There were a great number of mortified spots, some having the appearance of flattened black currants; some more raised, like pustules; and in some parts the villous coat was ulcerated and destroyed. No other parts exhibited any morbid appearance." p. 31.

The author has given a figure of this stomach, in a sort of aqua tinta, which conveys but an indifferent notion of the disease. He adds, that Mr Brookes, in Blenheim Street, has a stomach, taken from an animal which died rabid, exhibiting similar appearances. Mr Gillman inoculated two rabbits with the fluid of these "*apparent* pustules;" but no change in their health ensued. *

The dog, just alluded to, bit an old sow, and two young pigs, in its rabid state; all the three died rabid, and were dissected by the author. Both the symptoms of the disease in the swine, and the morbid changes observed after death, are worthy of notice, as they are the principal novelties contributed by the author.

"One of the young pigs, already referred to, which had been bitten least, and that only about the ears, on the morning of the *tenth* day after the bite, refused his food. When offered to him as usual, by placing it in his trough, after smelling at it he ran back, pointed his nose in the air, and was much agitated: in the evening he had a convulsive motion and twitching of his limbs. The eleventh day (the *second* of the attack) he became extremely violent. When I saw him, there was a considerable quantity of frothy saliva about his mouth: he started, and threw himself about in a most extraordinary manner; sometimes he sprang at least three feet from the ground; then beat himself forcibly against the wall; and sometimes ran round on his hind-legs, as dogs do when playing with their tails. This he continued, till exhausted, he would fall down and pant; but soon again became convulsed, and leaped from the ground as before, falling with considerable violence on his back or sides. About noon, the person who fed him gave him a slight blow on the head, and killed him. On dissection, the only parts inflamed were, the under surface of the epiglottis, and the villous coat of the anterior surface of the stomach, to the extent of the palm of the hand. The head had suffered such injury from the violence of the convulsions, that no dissection could be made; the skull and lower jaws were fractured: tongue in its natural state." p. 33.

The other young pig, which was seized on the *fourteenth* day from the bite, had been severely torn and wounded by the teeth of the dog. His disease commenced with rigors; he stood shivering beside his trough; appeared much debilitated; and refused food. On the *second* day of the disease, his posterior extremities were paralytic; he lay on his side, frothing at the mouth, and pulling the straw about with his fore-feet and teeth. The eyelids were separated, so that he seemed to stare, and the eyes were inflamed. "On the *third* day, it lay the whole time on its side; and, except occasionally slight twitchings in the legs, it remained perfectly still, and unable to rise, having lost all power in its extremities: it squealed when touched, as if the skin were more than usually sensible, and particularly when the mother went near it, or touched it. Towards the evening, the breathing became so feeble as scarcely to be discerned, and the conjunctive membrane so turgid as to protrude beyond the palpebræ." It died at a late hour the same night.

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* Mr Gillman also inoculated two rabbits with the saliva of one of the rabid pigs, without producing any disease whatever. p. 38.

On *dissection*, the brain exhibited a considerable hæmorrhage from the rupture of the veins of the pia mater, near the superior longitudinal sinus, and the pia mater itself was found much inflamed: the tongue and œsophagus natural; the under surface of the epiglottis, the inner membrane of the trachea posteriorly, and the villous coat of the stomach near the cardia anteriorly, slightly inflamed, one or two of its rugæ being livid.

The old sow began to pick up straws and dirt *twenty-seven* days after the bite, and on the 28th refused food, but was quiet and harmless, constantly rubbing the bitten parts, as the others had also done. In the evening, she eat some gooseberries, but swallowed them with difficulty. On the next day, she appeared dull, but came out of her sty: some milk was offered her, when she made several attempts to drink, but could not: there was a peculiar convulsive motion of the head, and twitching of the under jaw, but no dread of fluids. In the evening, the convulsive motions of the head were much increased, and recurred every quarter of an hour; she then "squealed out, and became alarmed when anyone approached her." On the *fourth* morning, these symptoms became still more frequent and violent. She often jumped up suddenly upon her hind legs, and threw herself upon her back with great force. She seems, indeed, to have exhibited much of that extreme irritability which characterizes the disease in the human subject: for "she was affected by the least noise:"—Mr Gilman says, "when I stamped my foot firmly on the ground, she was thrown by the noise into the most violent convulsive state, and squealed horribly. To such a high degree, in short, did the morbid excitability of the nervous system arrive, that the poor animal was affected by the least touch, which seemed to be torture. In the evening the symptoms were still more aggravated: she beat herself against the walls, and sprang up against the roof of the sty." These agitations continued till two in the morning, when she died.

The following were the appearances which presented themselves to the dissectors: viz. slight marks of inflammation about the epiglottis and the pylorus, with some livid marks in the villous coat of the stomach. The state of the brain is not mentioned. It would seem obvious, however, that both the paralysis of the second pig, and the violent convulsive jactitations of the other two, are principally referable to the morbid condition of the brain. But upon these appearances, or the connexion of the symptoms with them, the author makes no observation.

He now enters upon the investigation of the *origin* of rabies in dogs; and, after showing that it probably is produced independently of particular climates, of putrid aliment, of deficiency of water, of want of perspiration, or of the worm under the tongue, to which it has been at different times ascribed, he expresses his belief that it originates somewhat like typhus in the human subject, and is not always produced by inoculation by means of a bite: that is, he thinks it is occasionally brought on by the confinement of dogs, without exercise, in close and filthy kennels; and that the success of Mr Trevalyan, as related by Dr Bardsley, in clearing his kennel of the disease by changing even the pavement, after other means of purification had failed, affords presumptive evidence in favour of that opinion; and, consequently, the method of quarantine adopted by Mr Meynell, and recommended by Dr Bardsley, on the supposition that the disease originates exclusively from contagion, will not be a sufficient preventive alone. At all events, he shows, from some facts stated by the reverend sportsman, Mr Daniel, that the poison lies dormant in dogs, in some instances, four, five, and six months; and, consequently, that the period of two months is not sufficient for quarantine, before a new dog is introduced into a pack.

The author concludes this section with recapitulating the inferences, deduced in the course of it, which are sufficiently indecisive. The principal conclusions, for instance, are,

"That appearances of inflammation, particularly of the stomach, are not always found after death; and that the bodies of these animals occasionally exhibit *no mark of disease whatever*.

"That, although *all* the preceding *symptoms may be absent*, as fierceness, loss of appetite, and dread of water, and there should be *no marks of disease after death*, &c. the dog is capable of communicating this disease to various animals, particularly to the human species." p. 83.

In fact, the most comprehensive view of the records of medicine on this subject, lead to nothing more satisfactory; for, although some morbid change of structure has commonly been discovered by dissection of rabid animals; yet the organs which were found diseased in one, were altogether sound in another, and none of the morbid conditions were adequate to explain all the phenomena of this singular and formidable malady.

In his second section, Mr Gillman reviews the opinions that have been urged in favour of three modes of local treatment of the wound, viz. the use of *caustics*, of *ablution*, and of *excision* of the bitten parts; deeming the reputed preventive medicines totally inefficacious. His chief objection to the caustic arises from a notion, that the poison is not decomposed by such a chemical agent, but that a mere mixture takes place of the caustic substance, the decomposed animal fibre, and of the poison. "A new compound is formed, a saponaceous mass, or eschar, which is generally suffered to remain until it sloughs away." p. 94. Whence, he thinks, that actual mischief is perhaps produced both by the retention of the virus, and by the more extensive exposure of it to the action of the absorbents. And he quotes several cases, in which rabies occurred, after the most assiduous employment of caustics. He, therefore, recommends the speedy and complete excision of the part, after careful ablution, both of the wound and of the external surface. The recommendation of the latter caution, as well as of changing the knife, as often as it appears to enter into the wound made by the tooth, lest the sound parts may be inoculated by the very operation, appears to be judicious. When the nature and situation of the wounded parts render excision dangerous or impracticable, he advises us to have recourse to *ablution* only, as the next preferable preventive; for which purpose he recommends a weak solution of ammonia, consisting of one-fifth part of the latter to four of water; but whether he employed the pure or the carbonated ammonia, he has omitted to state. The most assiduous application of the lotion, aided by the use of a syringe, and followed by that of warm water, he thinks may successfully remove every particle of the virus, and secure the patient from future rabies. He accords with the opinion, now generally adopted, that this security may probably be obtained, by resorting to excision, even at a distant period from the bite, and when the wound has been long healed; since the poison appears to lodge in the part, and is only taken into the constitution at the time when the symptoms of rabies commence.

The author quotes some experiments made by Dr Zinke, of Jena; but from what publication, in this, as in many other instances of his quotations, he omits to state. Dr Zinke inoculated three dogs, a cat, two rabbits, and a cock, with the saliva of a dog, which had died rabid, mixing the virus, in different instances, with volatile alkali, a strong solution of arsenic, phosphorated water, and tincture of cantharides, and afterwards washing the wounds wth the same substances. One dog, on the *tenth* day after inoculation, one rabbit on the *eleventh* day, the cat on the *ninth*, and the cock on the *fourteenth* day, were seized with rabies, which proved fatal: the rest had no disease. From these experiments we acquire no information, except perhaps an argument in refutation of the opinion, maintained by some physicians, that the rabies originates, like tetanus, not from the instillation of a poison, but from the irritation of the bite: but as there is a wound inflicted in the process of the inoculation, although such a wound has never produced rabies, when made with a clean instrument, even these facts will probably not convince those inveterate sceptics.

In the third section, which relates to "the consequences, &c. of the bite of a rabid animal," i. e. to the disease usually called hydrophobia, as it appears in the human subject, there is nothing particularly worthy of notice, or novel, except a history of the symptoms in a case which the author had an opportunity of seeing. In stating the literary history of the disease, in a brief and hasty manner, (in which he appears to have had another article in the afore-mentioned Cyclopædia in his eye), he commits a mistake in saying that Aristotle has remarked, that persons bitten by rabid animals, die of rabies; for Aristotle excepts man alone, of all animals, from the fatal infection. *

In many passages the author betrays an imperfect acquaintance with the correct structure of his language; but, on the whole, he writes with perspicuity.

VI.

Monographie des Dégenerations Skirreuses de l'Estomac, fondée sur un grand nombre d'Observations recueillies tant à la Clinique Interne de l'Ecole de Medecine de Paris, qu' à l'Hôpital Cochin. Par Frederic Chardel, M. D. à Paris, 1808, pp. 218.

This work is inscribed to Corvisart, and appears to be written by a pupil of his very excellent school. The author has attentively examined the changes produced by morbid structure in the stomach, and by his observations has added to our knowledge of the pathology of that organ. In his preface, he makes some remarks on the comparative liability of the two sexes to different diseases; females are more subject to pulmonary consumption, than males; and men are more subject to organic diseases of the stomach and of the heart than women. Dr Baillie has remarked that scirrhus of the stomach is more frequently met with in men than in women, and Dr Chardel's experience confirms this observation; he says he has scarcely seen one instance of this disease among the patients at the infirmary (Saltpetrière) which is appropriated to old women. Out of the whole number of bodies dissected every year at l'Ecole de Medecine, four in every hundred are found to have scirrhous affection of the stomach. Hence Dr Chardel concludes, that next to the lungs and the heart, the stomach is most liable to organic disease, or to changes of structure arising from morbid action; after the stomach, he thinks the liver is most frequently affected with diseased structure; so that the liver ranks only in the fourth place, in the scale of predisposition to organic disease.

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* This exception is twice stated, in his short chapter "on the diseases of dogs." The words are, in the edition of Th. Gaza, "Canes tribus laborant vitiis, rabie, anginâ, podagrâ: facit rabies furorem,

The order in which the scirrhous affections of the stomach are treated in this valuable essay, is that pointed out by anatomical demonstrations. The author first begins with scirrhus of the cardia; next of the body or substance of the stomach; thirdly, of scirrhus of the pylorus; and he then goes on to investigate the causes of these diseases, and to point out the various morbid actions which may be sometimes confounded with and mistaken for them. Under each article, cases and dissections are detailed to illustrate the observations which the author makes.

The first chapter contains five cases, with dissections, of scirrhus of the cardia; the symptoms are, pain, difficulty in swallowing, frequent vomiting, costiveness, emaciation; and sometimes a hard tumor can be felt in the region of the stomach.

The second chapter comprehends scirrhous affections of the body of the stomach, the symptoms of which are, sense of weight and uneasiness in the region of the stomach, vomiting of food, obstinate costiveness, and hard tumor. All the patients were above thirty, most of them above forty years of age; they had suffered anxiety, and been exposed to mental distress. Soothing medicines, anodynes, laxatives, glysters, were employed with

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et quæ momorderit omnia rabiunt, *excepto homine.* Intereunt canes hoc morbo, et quæ morsa sunt, *excepto homine.*" Aristot. Hist. Anim. lib. viii. cap. 22. The author's learning, in this instance at least, has been at second-hand.

little or no benefit; brandy was found to remain in the stomach when every thing else was rejected by vomiting. In cases of scirrho-contracted pylorus, ten instances of which are accurately described, the vomiting occurs half an hour or an hour after eating; a hardness and tumor can readily be felt; the emaciation is very considerable, and the stomach is found prodigiously enlarged in size and weight. In one case, the great curvature descended so low down as the brim of the pelvis. The liver was found diseased in several dissections: white tubercles were detected in the parenchymatous substance of this organ; and in these cases, dropsy preceded the death of the patients. In the rest of the cases, all the viscera, except the pylorus, were perfectly healthy.

The causes of these disorders are far from being evident. Dr Chardel reduces them to three general heads. 1. Mechanical irritation. 2. Chemical or animal irritation. 3. A peculiar state of the lymphatic system. All classes of people are equally subject to scirrhous stomach, therefore mechanical pressure has very little to do in the production of the disease. The abuse of spirituous liquors passes for a frequent cause; yet among all the cases described, not a single one supports that opinion. Workmen, who drink spirits in a morning fasting, are not more subject to scirrhous affections of the stomach, than persons in other situations in life. Stoll mentions his having met with several instances of scirrhus in the stomach, occasioned by the intemperate use of spirituous liquors; but the cases adduced by him prove too much; for there were other morbid appearances, which could not arise from the topical action of fermented liquors.

Scirrhus commences by a thickening of the mucous membrane of the stomach, which forms adhesions to the muscular coat; the cellular substance placed between the muscular and peritoneal coats becomes the seat of the diseased structure, and, by enlargement, separates the fibres of the muscular coat; these parts become enlarged, and adhere together, till at last the mucous membrane is more changed in its structure, becomes ulcerated, or throws out a fungus. Dr Chardel is disposed to think this complaint is seldom purely a local disease. He attributes it to some morbid condition of the lymphatic system, different from cancer: the organization of the tubercles found sometimes in the stomach, and sometimes in other abdominal viscera, points out some analogy, and yet marks a difference between them and cancer. He divides the progress of the disease into three stages; the beginning, the confirmed, and the ulcerated stage. The duration is uncertain; in general, it is slow, especially in the first stage, which lasts longer than the other two put together. We shall translate our author's description of these different periods, as we are convinced, the diseases of which he so intelligibly treats, are often overlooked, or classed under the widely extended definition of dyspepsia.

" *First Stage.*—This is sometimes preceded by languor and general weakness of the whole system. Heart-burn, flatulence, a kind of smarting, which often extends from the epigastric region to the sides and back, as if the parts were corded by pain. From the commencement, the pain is fixed to one spot, either continual or of short duration, and more or less acute in the epigastric region; perhaps it may be increased by pressing upon it, especially after a meal. An increase of uneasy symptoms after food is taken into the stomach, which obliges the patient gradually to lessen the quantity. Difficult digestion, accompanied with a sense of weight in the epigastrium; sometimes the food is brought up by vomiting. Some patients then have recourse to spirituous liquors, to assist their digestion. At other times, simple nausea after a meal is the only symptom; and this gradually increases, until the food is actually rejected. After digestion is accomplished, quietness in general returns. Although the stomach be empty, nausea and vomiting are frequently troublesome; and when vomiting does not take place, some patients put their fingers down their throats in order to excite vomiting, which affords relief; looseness of the bowels, especially when the disease makes a rapid progress; but more commonly the bowels are torpid, and even costive. Glysters and laxative medicines, by producing stools, generally afford temporary relief. In spite of the trouble in digesting food, the appetite most frequently continues; it is sometimes increased, and the craving for food is joined to the horror of the evils which are brought on by taking it. The tongue remains clean and moist; the taste natural. When symptoms of sordes appear, it is only by accident."

" *Second Stage.*—Emaciation strongly marked; often far advanced. Tumor in the epigastric region more or less extensive; more or less painful. Lying down upon the side opposite to that which is occupied by the tumor is sometimes uneasy. Vomiting of food, with pain, or merely by the rising up of the food, without its having undergone any other change than what takes place from its remaining a certain time in the stomach; often it is mixed with thick viscid matter. Patients may remain several days without vomiting, when the stomach is not very irritable; then the food accumulates, until it makes the stomach contract; and in this state of distension, its figure can be perceived through the abdominal covering. In this case, it becomes of very great size, and gives the sensation of some fluctuation.

" At this period, sedative medicines often produce the happiest effects, and for a time stop the sickness. The patient who has been compelled to diminish, by degrees, the bulk and solidness of his food, is often reduced to taking merely a little milk, broth, or vermicelli. Pains in the stomach become constant. Obstinate costiveness; the stools become hard, thin, and pitchy, very like meconium. Diarrhœa sometimes alternates with constipation. The appetite often remains, and the tongue is clean; at times a disagreeable taste is perceived, although the tongue be not at all foul."

"*Third Stage.*—Emaciation and marasmus arrived at its highest point. The patient is *exsuccus*, or in a state as if all the juices of his body had filtered away. Pains in the stomach are more violent and more permanent; opium no longer procures rest. The matter vomited is changed, and has a smell sometimes that is intolerable; at length, what is brought up by vomiting, is like black pease-porridge, resembling soot mixed with viscid matter, or it is only tinged with streaks of this dark colour. The stools undergo the same changes; it may happen the alvine evacuations alone undergo these changes, if the ulceration is situated very near the pyloric opening of the stomach. The breath becomes fetid, the mouth very foul, yet the tongue still retains its natural appearance. Towards the close, relaxation frequently succeeds to costiveness; it is not uncommon for the vomiting to cease, the stomach having lost all its power. Death takes place without agony."—Such is generally the progress of scirrhus of the stomach. In some particular cases, vomiting, which is the chief symptom, is wanting altogether, as several other symptoms are." p. 143.

Repeated observations, at the Cochin hospital, have concurred to prove to Dr Chardel, how obscure and difficult is the diagnosis of organic affections of the stomach. Several cases are given in detail to prove this assertion, which needs no proof to those who are in the habit of prescribing for diseases by their real nature, and not merely by their Christian name. The age and time of life is the principal circumstance to be depended upon, in forming our opinion of the nature of the cause which sometimes excites incessant vomiting. If the patient be young, we ought not suspect any scirrhus, which does not occur till near forty.

The last chapter of this work is very short; it contains merely a few general remarks (generalités) on the treatment of scirrhous affections of the stomach. It is only by preventing the ulcerated stage from coming on, that remedies can be useful; for, when once established, the cure of the disease is beyond the reach of art. The remedies recommended, are, the antiphlogistic regimen and blisters, when symptoms of increased action or inflammation are present; opiates, antispasmodics, emollients, laxatives, glysters; and the diet should consist of articles most easily digested.

PART III.

MEDICAL INTELLIGENCE.

Biographical Memoir of the late DR WILLAN.

ROBERT WILLAN, M. D. F. R. S. and S. A. was born on the 12th of November 1757, at the Hill, near Sedbergh, in Yorkshire, where his father resided, in the enjoyment of extensive medical reputation and practice. * He was educated in the principles of the Society of Friends, and received his scholastic tuition exclusively at Sedbergh; having obtained his classical knowledge at the grammar-school of that place, under the care of the Reverend Dr Bateman, and his mathematical acquirements, into the higher parts of which he advanced with great success, by the assistance of the celebrated Mr Dawson. Being early distinguished by his studious disposition and the rapidity of his attainments, he was a favourite pupil with both his tutors, and was advanced by the former into the classes of his seniors, among whom he maintained his station by the excellence of his lessons and exercises. He became ultimately an accomplished classical scholar, and was deemed to excel his master in his critical knowledge of Greek. Mr Dawson likewise esteemed him one of the most successful students of the mathematics, among the numerous able pupils whom he instructed in that science. The medical profession had long been determined upon as the object of his future pursuit; and he commenced his studies in that line at Edinburgh, in the autumn of 1777. After the usual residence of three years in that University, he received the degree of Doctor in 1780, when he published an inaugural dissertation, "De Jecinoris Inflammatione."

In the autumn of the same year, he repaired to the metropolis with the view of obtaining farther medical information, and attended lectures with great assiduity. An arrangement had been made some time previously with Dr Trotter, a relative, and a physician of some eminence at Darlington, in the county of Durham, but advanced in life, in consequence of which he intended to decline practice in that place in favour of his young friend, as soon as he had completed his studies. When in London, Dr Willan was introduced to Dr Fothergill, who, from a just estimate of his talents and acquirements, recommended him to try his fortune in the metropolis, and offered him his assistance. Dr Fothergill, however, died in the month of December, in that year; and in the commencement of the following year, 1781, the death of Dr Trotter also occurred; upon which Dr Willan immediately went to Darlington, where he found two opponents already on the spot: one of these, the late Dr Rotheram, was afterwards, for some years, Dr Black's assistant at Edinburgh, and ultimately Professor of Natural Philosophy in St Andrews; the other, a gentleman whose name we have not learned, continued to reside there while he lived. Dr Willan remained at Darlington about a year; during which period he analyzed the sulphureous water at Croft, a village about four miles from that place, and wrote a small treatise respecting its chemical and medicinal qualities, containing also a comparison of its properties with those of the Harrogate waters. This tract was published by Johnson, in 1782, with the title of "Observations on the Sulphur water at Croft, near Darlington:" and a second edition was printed a few years afterwards.

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* Dr Robert Willan, senior, graduated at Edinburgh in 1745, and published an inaugural thesis, "De Qualitatibus Aëris." The Hill is now the residence of his eldest son, Richard Willan, Esq.

In the beginning of 1782, not deeming an establishment at Darlington worth contending for, Dr Willan determined to return to London. The assistance of Dr Fothergill was now lost to him; but he experienced much active friendship from Mrs Fothergill, the doctor's surviving sister. His advantage, however, was greatly promoted by the establishment of the Public Dispensary, in Carey-Street, which was opened in the commencement of 1783, and was chiefly accomplished by the exertions of some of his friends. He was appointed sole physician to it; and under his humane and active superintendance, together with that of his able and benevolent colleague, Mr John Pearson, the surgeon to the Institution, the new Dispensary speedily flourished, and became one of the most extensive and respectable establishments of its kind in London. He resided at this time in Bartlett's Buildings, Holborn, with a family connected with the Society of Friends. In March, 1785, having passed his examinations before the College of Physicians with great credit, he was admitted a Licentiate of that Body; on which occasion he addressed some congratulatory Greek verses to the board of Censors.

About the year 1786, he engaged in the office of teacher, and delivered lectures on the principles and practice of medicine at the Public Dispensary. But his success, we believe, in this undertaking, was inconsiderable. Such attempts, indeed, have seldom proved eminently advantageous, except in connexion with the large hospitals; the reputation accruing from an attendance on these great schools being deemed of almost equal importance to the future success of the student, with the knowledge to be acquired there. At a subsequent period, Dr Willan received, as pupils at the Dispensary, young physicians who had recently graduated, and who were initiated into actual practice, under his superintendance, among the patients of the Institution; a mode of tuition from which they derived much practical knowledge, and were grudually habituated to the responsibility of their professional duties. Upwards of forty physicians, almost all of whom have subsequently attained professional reputation, or now occupy responsible situations, both in this country and abroad, have received the benefit of this Institution.

From the moment when Dr Willan settled in London, he pursued his professional avocations with an indefatigable industry and attention, of which there are perhaps few examples. He never quitted the metropolis for any consideration of health or pleasure, during a period of thirty years. For many years he conducted the medical department of two Dispensaries, (having subsequently been favoured with an appointment to the Finsbury Dispensary, in addition to that of Carey-Street), during which his unremitting attention to the progress of the diseases which came under his care, is evinced by the prodigious collection of cases, which he has recorded in MS. mostly in a neat Latin style, in which he wrote with great fluency. From this assiduous and patient observation of the phenomena of disease, he doubtless acquired that acute diagnostic skill, which is the true characteristic of a sound physician, and which all, who have witnessed his practice, allow him to have possessed in an eminent degree. This discriminative talent, indeed, has been sufficiently manifested in his great work "on Cutaneous Diseases;" but the delicacy of his tact, which enabled him to detect, like an accomplished artist, the minute peculiarities in the appearances of these diseases, which escaped the notice of ordinary observers, was very remarkable. During the whole of his career, he was not less assiduously employed in examining the records of medicine, both ancient and modern, than in the actual observation of diseases; of which the learning and critical acumen displayed in his publications, as well as the mass of manuscript collections, which he has left behind, afford abundant proof. His habits of domestic privacy enabled him to dedicate a large portion of time to these researches; and indeed to the unabating ardour with which he applied himself to them, must be attributed that premature injury of his health, which shortened the period of his life.

The rise of medical reputation, unassisted by powerful connexions, when all unworthy arts of advancement are disdained, must necessarily be very slow. For a considerable time it has no existence, even in the narrow circle of private friends, whose confidence is placed on older heads: and ultimately, it springs but from the gradual accumulation of individual approbation, as the opportunities of meriting it from time to time occur.

> "*Crescit occulto velut arbor ævo*
> *Fama.*—"

Dr Willan's advance to public reputation, and to the consequent emoluments of the profession, was, however, regularly progressive, though slow; and his publications, especially his treatise on the diseases of the skin, upon which his posthumous reputation will principally rest, finally placed his professional character upon high ground. In the spring of 1791, he had the honour of being chosen a Fellow of the Society of Antiquaries. He had been early attached to antiquarian researches, and in his juvenile days had, with considerable industry and accuracy, collected from the Odyssey a history of the manners of the primeval times of Greece. Latterly he communicated some papers to this Society, of which however he declined the honour of publication; particularly, a collection of provincial words, and an elaborate essay on the practice of "Lustration by Need-fire," (scarcely extinct in some of the northern counties), which led him into a curious and extensive research, respecting similar practices in ancient times, and the mythological superstitions connected with them. It was not until the month of February 1809, that he was elected a Fellow of the Royal Society.

The increase of his professional avocations, which had compelled him some time before to resign his office in the Finsbury Dispensary, led him, in the year 1800, to wish to lessen the fatigue of his duties at the Public Dispensary; and accordingly his friend and pupil, Dr T. A. Murray, was appointed his colleague in that year. This active and intelligent physician, through whose exertions, aided by the Society for bettering the condition of the Poor, the Fever Institution of the metropolis was established, was unfortunately cut off in February 1802, by the contagion of fever, caught in the infected apartments of the first patients who were admitted into the Institution. Dr Willan, who had strenuously recommended this establishment, was nominated one of its physicians extraordinary. In December 1803, finding his private practice incompatible with a proper attendance to the concerns of the Dispensary, which he had now superintended for the space of nearly twenty-one years, he resigned his office. The governors of the charity, in testimony of their gratitude for his services, and esteem for his character, nominated him Consulting Physician, and made him a governor for life, and likewise presented him with a piece of plate, of the value of fifty guineas, inscribed with a testimonial of their attachment and respect. *

For several years previous to his resignation, Dr Willan's fame and character had been fully established, and the emoluments derived from his practice very ample. He had, during the preceding course of years, resided successively in Ely place, Holborn, and in Red-Lion Square, in connexion with the family before mentioned; and lastly, on his marriage in the spring of 1801, he settled in Bloomsbury-Square. He was now not only generally consulted, especially by persons labouring under cutaneous diseases, but was also deferred to on all occasions by his professional brethren, as the ultimate appeal on these subjects: for, however generally skilled in every other department of medical practice, his reputation for peculiar knowledge on this point had certainly excluded him, in some measure, from that universal occupation in his profession, to which he was so well entitled.

From his childhood Dr Willan had been of a delicate constitution; his complexion in early life being pale and feminine, and his form slender. His extremely regular and temperate mode of life, however, had procured him an uninterrupted share of moderate health, and latterly even a certain degree of corpulency of person, though without the appearance of robust strength. In the winter of 1810, some of his friends had remarked a slight shrinking of bulk, and change in his complexion: but it was not till the following spring that symptoms of actual disease manifested themselves. Being at this time accidentally called upon to make some bodily exertion in assisting a patient, his respiration became oppressed, and he expectorated some blood. Soon afterwards he suffered two severe attacks of catarrh in immediate

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* This inscription was written by the late learned and reverend Dr Matthew Raine, one of the governors of the Dispensary, and was as follows. "Viro integerrimo, artis scientiæque suæ peritissimo, Roberto Willan, M. D., ob felicissimam operam, in morbis egenorum civium sanandis, viginti annos amplius gratuito et strenue navatam, ægrotantium apud Londinenses pauperum Patroni, amico amici, LL. D. D. D. A. D. 1804, Preside Comite Sandvicense, collatæ pecuniæ Custode Gulielmo Waddington."

succession, which, as he did not desist from his professional avocations out of doors, did not readily subside, and left behind a considerable difficulty of breathing, which rendered the horizontal posture in bed insupportable, with sleeplessness, total loss of appetite, cough, hoarseness, and a very unequal and irregular state of the pulse,—symptoms which seemed to imply an effusion of water into the cavity of the chest, and perhaps into the pericardium. The complexion now became exceedingly sallow, and the *tunica conjunctiva* of the eyes assumed a yellowish hue. With a view to obtain some respite from professional fatigue, as well as the advantage of a better air, he took a house, in June 1811, at Craven Hill, about a mile from town, on the Uxbridge road, where he spent his time, with the exception of two or three hours in the middle of the day, when he went to Bloomsbury Square, to receive the patients who came thither to consult him. During the months of July and August, partly in consequence of the mildness of the season, and partly of the employment of some active medicines, and of the repeated application of blisters, the cough and hoarseness were removed; but the other symptoms underwent little change, and the lower extremities became gradually, but at length severely anasarcous, from the feet upwards. A sudden unfavourable change of the weather, in September, occasioned a return of the cough and hoarseness, with some expectoration; and the probability of becoming phthisical, under the influence of an English winter, induced him to accede to the strenuous recommendation of some of his friends, and to undertake a voyage to Madeira. He accordingly embarked with his family in the Thames, on the 10th of October; and, after being 53 days on shipboard, detained by foul winds in the Downs and at Portsmouth, he arrived at Madeira on the 1st of December. During this interval, a considerable hardness and tumefaction took place in the abdomen, with an effusion of water into that cavity, and he was harassed by a dysenteric attack. By perseverance in an active course of medicine, however, after his arrival at Funchall, all the symptoms were considerably alleviated; insomuch that, in the month of February, he meditated a return to the south of England in April. But this alleviation was only temporary: his disease was again aggravated; the dropsy, and its concomitant obstruction to the functions, increased; and, with his faculties remaining entire to the last, he expired on the 7th of April, 1812, in the 55th year of his age.

By the death of Dr Willan, the profession was deprived of one of its bright ornaments, and of its zealous and able improvers;—the sick, of a humane, disinterested, and discerning physician;—and the world of an estimable and upright man. By his exterior deportment in public, indeed, he was far from rendering justice to his own character. His early education, his studious mode of life, and retiring disposition, prevented that display of his various and extensive knowledge in mixed society, which delighted the privacy of a small circle of friends, and which was dispensed with much playfulness and simplicity of manner. In all the relations of domestic life, indeed, he was an object of general esteem and attachment. The gentleness and humanity of his disposition were equally conspicuous in the exercise of his professional duties; in the patient attention with which he listened to the complaints of the sick, whom, in his fullest occupation, he never dismissed from his presence dissatisfied with the brevity of his inquiries; and in the liberality with which he imparted his assistance, yet refused the remuneration to which he was entitled, when the circumstances of the patient appeared to render it oppressive. In his intercourse with his professional brethren, he was liberal and independent, and extremely tender of giving offence. As a practitioner, as we have already observed, he was a close and faithful observer of diseases, and by the peculiar quickness with which he detected their characteristic appearances, however obscured by complication, he had obtained a copious store of sound experience: yet it has been remarked, that he did not always prescribe with that vigour and decision, which so much discriminative talent would have authorized.

As a professional writer, Dr Willan appeared early in his contributions to the periodical works. On his arrival in London, he became a member of a private medical society, which held its meetings at a coffee-house in Cecil-Street, and which published two volumes of papers, under the title of "Medical Communications," in 1784 and 1790. In the second of these volumes, he published the history of "A remarkable Case of Abstinence," in a hypochondriacal young man, which was uninterrupted for the space of *sixty-one* days, and terminated fatally. We believe that this was the only medical society of which he was ever a member. Several communications from him were also printed in the London Medical Journal, edited between the years 1781 and 1790, by Dr Simmons. In the 4th volume, p. 421, a short letter of his appears, stating the character of a non-descript *Byssus*, found in the sulphureous waters of Aix, and differing from that which he had discovered in the waters of Croft and Dinsdale. In the 6th volume of the same Journal, he relates a fatal case of obstruction in the bowels, from constriction of the colon near the sigmoid flexure, which prevented any evacuation for upwards of 30 days before death; to which he appended some useful reflexions on the diagnostic symptoms of these obstructions, as occurring in the large or in the small intestines. In the 7th volume he describes the cure of a case of chorea, by the cuprum ammoniacum, which, however, he candidly acknowledges, in a subsequent publication, * speedily recurred, and was cured by very different means. In the same volume he relates also a singular termination of abdominal dropsy, by a spontaneous discharge of the fluid per vaginam. And in the 8th volume he has given the detail of seven cases of ague, which were speedily cured by the preparation of arsenic, which had recently been recommended by Dr Fowler. After the publication of the 11th volume of this Journal, Dr Simmons commenced a new series, under the title of " Medical Facts and Observations;" in the 3d volume of which, a paper of Dr Willan's appeared, containing a description of several cases of ischuria renalis in children, which was found to be connected with inflammation throughout the mesentery.

In the year 1796, Dr Willan commenced a series of monthly reports, after the manner of those which Dr Fothergill had formerly given to the public, † containing a brief account of the state of the weather, and of the prevalent diseases in the metropolis. The practice of a Dispensary, where the diseases of the poor, who are peculiarly exposed to the vicissitudes of the seasons, were observed on a large scale, was particularly favourable for ascertaining the existence of epidemics, and for estimating the state of the public health. By the additional scheme, which Dr Willan devised, of presenting a monthly catalogue of the diseases which came under his care, the state of the general health was brought most distinctly under the view. These reports were published in the " Monthly Magazine," which had been recently established, and were continued to the year 1800, when he collected them into a small volume, and published them in 1801, under the title of " Reports on the Diseases in London." This little work is pregnant with important and original medical observations, especially on points of diagnosis, which are the foundation of all rational and successful practice. " Eum verò recte curaturum, quem prima origo causæ non fefellerit." ‡ But from its unassuming pretensions and desultory arrangement, it has not been sufficiently known and valued by the profession: it never reached a second edition.

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* Reports on the Diseases in London, p. 246.

† In the Gentleman's Magazine, Vol. XX. *et seq.*

‡ Celsus, Præf.

We are unacquainted with the circumstances which originally drew the attention of Dr Willan to the subject of cutaneous diseases. Most probably his own extreme accuracy made him feel early and acutely the vagueness and confusion of language, which universally prevailed in this department of medicine, while his attendance at a public institution brought many of these diseases constantly under his inspection. So early as 1784 and 1785, that accuracy led him to attend to the *elementary forms* of eruptions, if we may so speak, upon which he saw that a definite nomenclature could alone be founded, and upon which he erected the ingenious system developed in his large work. At that period, in his notes of cases, he has seldom designated eruptions by their ordinary names; but speaks of *papulæ* scorbuticæ, eruptio *papulosa*, &c. In 1786 his notes exhibit still more decisive proofs of the careful attention which he was directing to this subject, in the minute descriptions (accompanied by slight sketches with the pen) of the forms, magnitude, and progress of eruptions. The zeal with which he was at the same time investigating the original acceptation of the Greek, Roman, and Arabian terms, applied to eruptive diseases, is likewise manifested by his copious collections from authors, and by the occasional alterations of the nomenclature, applied in the cases, before he had finally determined on his arrangement. This was probably decided about the year 1789; as in the following year his classification was laid before the Medical Society of London, and honoured by the assignment of the Fothergillian gold medal of that year, to the author.

It is scarcely necessary to state here, that the groundwork of this arrangement is laid in the external characters, or what we have above called the elementary forms, of eruptions, which are distinguished in the outset by precise definitions; such are pimples, scales, rashes, pustules, vesicles, &c. Upon this plan alone can a perspicuous and intelligible classification be formed, as in other branches of natural history.

It was not till the beginning of 1798, that the first part of this work, including the *Papulous* eruptions, was published, in which, as in the subsequent parts, each variety was represented by a coloured engraving. In 1801, the second part, including the *Scaly* diseases of the skin, appeared; in 1805, the third part, comprising only two genera of *Rashes*, viz. measles and scarlet-fever; and in 1808, the fourth part, comprehending the remainder of the rashes, and the *Bullæ*, or large vesications; the whole containing thirty-three plates, and comprising about half of the classification. Four Orders, characterized by the appearance of Pustules, Vesicles, Tubercles, and Spots, remain unpublished; and, with the exception of the two first genera of pustular diseases, *Porrigo* and *Impetigo*, which have been long delayed from some impediments on the part of the engraver and publisher, the rest of the MS. is probably not at present in a state to meet the public eye.

In the interim, however, from the temporary interest which the investigation of the vaccine question excited, Dr Willan was induced so far to anticipate the order of *Vesicles*, as to publish, in 1806, a Treatise "on Vaccination;" in which he also introduced the subject of chicken-pox (another *vesicular* disease), in consequence of the mistakes, which had been committed, in supposing that this was small-pox when it occurred after vaccination. Two engravings accompanied this treatise, which exhibited the regular form of the vaccine vesicle, the imperfect vesicle, the three varieties of chicken-pox, and the ordinary porrigo favosa of the face; a disease, the origin of which had been falsely attributed to vaccination. Although six years have now elapsed, since the publication of this volume, subsequent experience has added no fact of importance to the information which it contains;—another proof of the accuracy of Dr Willan's observation.

In addition to the writings above mentioned, which have been committed to the press, Dr Willan had left some others in an unfinished state. During three or four years previous to his death, he had employed his leisure in a most extensive investigation of the antiquities of medicine, if we may so express ourselves, which he had conducted with his usual felicity of execution. His principal object was the illustration of four subjects, which are enveloped in no small degree of obscurity; namely, 1. The nature and origin of the epidemic or endemic *Ignis sacer*, which was a frequent cause of much mortality in ancient times, and in the middle ages, and has been confounded with the plague, to which it had no resemblance but in its fatality.—2. The evidence of the prevalence of small-pox, measles, and scarlet-fever, not only in the first ages of the Christian æra, but at still more ancient periods; of which he has brought together, with great ingenuity, a collection that appears incontrovertibly to establish the affirmative of the question.—3. The history of the Leprosy of the middle ages.—And, 4. That of the Lues venerea. The dissertations relative to the two first mentioned topics, Dr Willan had nearly completed, having remodelled the second, by the aid of a friendly amanuensis, during his residence in Madeira. They contain a very able and original view of the state of disease in the early ages of the world, not founded upon any fanciful explanation of terms, but deduced from a sagacious development of facts, which have hitherto been concealed under perplexed and mistaken, but sufficiently intelligible language. He has likewise supported the conclusions which he has drawn, by evidence collected from sources not usually resorted to in such researches.

Several years ago, Dr Willan made a collection of observations, in about two thousand patients, with a view to an investigation of medical physiognomy, or temperaments, chiefly in regard to the diseases to which each variety of temperament is peculiarly predisposed, and to the operation of medicines on them respectively. In the prosecution of this inquiry, he procured several drawings (portraits) illustrative of the characteristic marks of the more striking varieties. He arrived at some interesting inferences respecting both the physical and moral constitutions connected with these external characters; but he did not deem the matter sufficiently matured to lay before the public.

In conclusion, we must not omit to mention a juvenile work, published by Dr Willan, on a theological subject; namely, a Life of Christ, related in the words of the evangelists, of whose details he selected those parts respectively which were most full and explicit; and he illustrated the whole by critical notes and explanations, which were particularly full in regard to the diseases mentioned by those sacred writers. A second edition of this work, with additional illustrations, was published in 1802.

B.

Report of Diseases treated at the PUBLIC DISPENSARY, *(near Carey-Street), London, from May* 31, *to Aug.* 31, 1812.

Acute Diseases.

	No. of Cases.		No. of Cases.
Tertiana	1	Varicella	2
Febris	20	Rubeolæ et earum sequelæ	16
Febris infantum remit.	11	Scarlatina	1
Febris puerperalis	1	Erysipelas	1
Apoplexia	1	Herpes proserpens	1
Otalgia	1	Cholera	2
Cynanche tonsillaris	4	Dysenteria	15
——— parotidæa	4	Vomitus bil.	1
Catarrhus	23	Rheumatismus acutus	7
Pneumonia	9	Arthritis rheumatica	1
Pertussis	3	Abortus	2
Variola	10		

Chronic Diseases.

	No. of Cases.		No. of Cases.
Cephalæa	20	Convulsio	1
Vertigo	8	Tremor ex hydrargyro	2
Dysecœa	1	Chorea	2
Catarrhus chronicus	19	Fatuitas	1
Asthma et Dyspnœa	6	Paralysis	6
Hæmoptysis	18	Paraplegia	1
Phthisis	29	Lumbago et sciatica	7
Dysphagia	2	Rheumat. chron.	33
Ptyalismus	1	Hydrothorax	1
Hæmatemesis	3	Ascites	2
Pyrosis	2	Anasarca	5
Gastrodynia	33	Hydrops tot. corporis	2
Dyspepsia	25	Mollities ossium	1
Hypochondriasis	2	Hectica adolescentium	1
Hepatalgia	9	Scrofula	4
Icterus	4	Lichen	2
Hepatitis chronica	1	Prurigo	6
Enterodynia	11	Lepra	4
Colica Pictonum	3	Psoriasis	3
Prolapsus ani	2	Erythema	3
Hæmorrhois	4	Urticaria	5
Diarrhœa	19	Roseola	2
Ascarides	1	Intertrigo	2
Marasmus	11	Impetigo	1
Tabes dorsalis	1	Porrigo	16
Nephralgia	12	Ecthyma	1
Hæmaturia	1	Scabies	8
Enuresis	3	Sycosis	1
Amenorrhœa	4	Eczema	2
Dysmenorrhœa	1	Rupia	1
Menorrhagia	16	Aphthæ	3
Leucorrhœa	25	Acne	1
Hysteralgia	1	Lupus	1
Blenorrhœa	1	Mollusca	1
Asthenia	36	Tubera syphiloidea	2
Hysteria	6	Phthiriasis	1
Epilepsia	4	Ulcera mammillarum	1
Palpitatio	2		

The whole of the summer months has been cool, with the exception of a few days in June, and the second week of July. At times, indeed, even in the month of August, the temperature has been actually cold, especially in the mornings and evenings. The atmosphere has been almost constantly cloudy, so that, for many days together, the sun was never visible; and hazy weather, with light and drizzling rains, has been unusually frequent for the season. The harvest, and the productions of summer generally, have been considered as later by a fortnight than in ordinary seasons.

From this cool state of the weather, the occurrence of a smaller proportion than is usual of bilious diseases, and a larger proportion of catarrhal and rheumatic affections might have been anticipated. The catarrhal complaints, however, have been comparatively rare; although rheumatism, in its various modifications, has been frequent, and hæmoptysis and pulmonary consumption have appeared in more than their usual proportion; and, though cholera has only been observed in two instances; yet other complaints of the alimentary canal, such as diarrhœa, dysentery, enterodynia, gastrodynia, hepatalgia, dyspepsia, and that general class of nervous complaints, under the head of Asthenia, which is connected with gastric derangement, have been unusually numerous. Perhaps this circumstance is attributable to the daily vicissitudes, which the sharp north and east winds, that have commonly prevailed, produced in the evenings, though preceded only by moderate warmth during the day. To the same cause, probably, is to be ascribed the great number of those cutaneous eruptions, which the summer usually produces, when the body is chilled, after being heated by exercise, carried to a state of fatigue and perspiration; all the cases of erythema, roseola, lichen, urticaria, eczema, herpes, and psoriasis, occurred in and after the second week of July.

The contagious exanthemata have prevailed to a considerable extent this summer. In the month of June, the measles became very general among children and young persons; but, as is usual in mild weather, all the cases that fell under our notice, with one exception, went through their course without any very urgent symptoms. In the case excepted, the prostration of strength at the close of the eruption was considerable, and the fading efflorescence became intermixed with a crop of petechiæ. As there was apparently no local congestion, however, the decoction of cinchona, with sulphuric acid, and a little wine, was administered, and the child speedily recovered. In general, a spontaneous diarrhœa occurred, sometimes on the second day of the eruption, and sometimes at the period of its decline, which contributed, as is usual,* to ameliorate the severity of the febrile symptoms: where it did not appear spontaneously, a laxative of calomel and rhubarb seemed to alleviate the severity of the fever. In some cases, however, notwithstanding the disease had gone through its course in this moderate way, some severe symptoms of local congestion occurred on the decline of the rash, or even later during the convalescence of the patients. A severe ear-ach recurred twice, in one instance, after the rash and fever had altogether disappeared, and was removed by leeches. The lungs suffered from a similar determination of blood in other instances; and, where active remedies were omitted to be used, a cough, with expectoration, remained troublesome for a considerable time; but it readily yielded to the operation of leeches and blisters in the commencement of the attack. In one or two cases, the diarrhœa, instead of a temporary and salutary discharge, became chronic, and was attended with a febricula, parched lips, a circumscribed flush on the cheeks, shrinking of the features, a dry skin, and much debility. Slight alteratives, especially the hydrargyrus cum creta, with antimonials, and light nourishment, appeared to relieve this affection in a short time.

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* See Dr Willan's Treatise on Cutaneous Diseases, Order III. p. 233.

The chicken-pox was also prevalent at the same time, but from its mildness it seldom becomes an object of attention at public institutions, except for the purpose of determining its nature. It occurred in several families of respectability in the neighbourhood of Russell Square, but without any remarkable symptoms; except that, in one child, on the evening preceding the appearance of the vesicles, an universal red rash covered the skin, accompanied with extreme heat and tingling, but disappeared before morning, when the varicella came out.

The small-pox, which appeared here and there within the district of the Dispensary, in the month of June, has unfortunately been prevalent to a great extent, perhaps universally throughout the metropolis, in the two succeeding months, and continues to swell the weekly bills of mortality. It is melancholy to reflect on the immense proportion of the children of the lower classes that are exposed to the infection of this pestilence, in consequence of the weak prejudices of the parents against the security, or the salutary nature, of vaccination. The influence of these prejudices, we have been sorry to observe, has, in some instances, extended to those who had obtained the security of vaccination for their elder children; and in spite of the living evidence daily before their eyes, had produced, in some a careless state of doubt or indifference, in others a total want of confidence in it, so that their younger infants were now labouring under small-pox. All the cases in our list recovered; but we heard of many instances of fatality; and some of the recent bills of mortality have exhibited *sixty* deaths by small-pox in the week! Can the caricaturists, and pamphleteers, and cow-pox chroniclers, who are accessory to the spreading of this murderous contagion, still complacently urge their *humane* plea, that the *small-pox is a merciful provision of Providence for the poor man*, by diminishing the *burthen of his family!* *

In explanation of one or two terms, in the foregoing list, it may be observed, that the appellation of Rupia was not mentioned in the enumeration of genera in Dr Willan's classification, as he had included the eruption under the pustular genus Ecthyma; but as it is vesicular in the commencement, is not surrounded by the red elevated base, and is covered with a thin loose scab, in which circumstances it differs from ecthyma in external appearance, though it coincides in those of its origin in many cases, he intended to separate it under this title, which is derived from ϱυπος, *sordes.* The Herpes *proserpens* differs from the Herpes *circinans*, which includes shingles, principally in the situation and line of its march: instead of going round, or encircling the limb, it proceeds longitudinally in the direction of the muscles, by successive patches of vesicles. This is invariably the progress of herpes affecting the extremities; while that of the trunk, neck, mouth, and eyelids, encircles the parts on which it appears. Under the head of syphiloid tubera, I have put down two cases of an eruption, described in a former report, † which is not referable to any of Dr Willan's genera of tubercles, nor does it properly associate with the scaly diseases described by him. It is, however, very uniform in its appearance, insomuch that one drawing, which I procured of the eruption, has accurately represented all the other cases that have occurred to me. If farther observations coincide with those already made, I shall lay the cases before the public.

Several of the examples of dysentery and diarrhœa were accompanied with severe pains in the belly, recurring in paroxysms at short intervals, and, after continuing in this way a few days, with tension and tenderness of the belly, and slight feverishness. In these cases blisters were applied with little or no benefit; but where the pains and tenderness were very great, the application of leeches to the abdomen was eminently useful. Internally small doses of calomel and ipecacuanha, or antimonial powder, combined with the extract of poppy, and given twice a day, afforded great alleviation to the symptoms, producing a discharge of muddy light-coloured and offensive matter from the bowels, apparently in larger quantity than the whole of the ingesta. Until these motions assumed the colour, consistence, and odour of healthy fæces, or became highly charged with a dark yellowish green matter, of a tarry or oleaginous appearance, (which seemed to be the precursor of healthy secretions), the symptoms were not materially relieved, and never permanently. In one case, which had commenced as cholera, these medicines produced only partial relief; and delirium, with a brown dry tongue, frequent small pulse, prostration of strength, and other typhoid symptoms ensued, and terminated fatally. T. B.

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* See Mr Birch's "Serious Reasons for uniformly opposing Vaccination." 1807.

† See the number of this Journal for January 1812, p. 119.

Bedford-Row, Aug. 31, 1812.

To the Editor of the Edinburgh Medical and Chirurgical Journal. *

Sir,—My attention has been lately called to an article in your Journal, containing a Review of Mr Phillips's Examination of the last edition of the Pharmacopœia Londinensis, the perusal of which has given me the utmost surprise. Neither with the opinions of the reviewer on Mr Phillips's publication, nor with the remarks upon the College of Physicians have I, at present, any concern, but shall confine myself entirely to some reflections of his on the London Society of Apothecaries.

The writer informs us in this review, " That the Society of Apothecaries claims a little more attention, not for appointing a committee for the purpose of cooperating with the College in the use of their extensive laboratory, and in bringing to the test of that sort of experiment upon a large scale, which could alone render the suggestions of science practically useful, the several processes which were communicated by the College; but for grossly misleading and deceiving the College, and for openly contravening its injunctions, which the said society is specially bound to obey.

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* In the exercise of our censorial functions, it is our earnest endeavour to be, at all times, just and impartial; but critics, notwithstanding the high tone which they consider themselves authorized to assume, are not infallible; and we cannot hope that we have never misunderstood or misrepresented the statements and opinions of others, to which we have had occasion to allude. We are, however, always ready to make every reparation in our power, when we know that we have done wrong, and to give publicity to any proper explanation or reply from those who may consider themselves injured by our remarks. To Mr Field we return our thanks, for the polite and candid manner in which he has defended the worshipful Company of Apothecaries, against the animadversions contained in the review of Mr Phillips's work, inserted in our last Number.—*Editor.*

"It is evident that the worthy Company of Apothecaries did not inform the College, how many of the suggestions of science they found to be improper, extravagant, or absolutely impracticable; and, it is probable, they never communicated to the College the processes they themselves employed, but rather carefully concealed them, as precious nostrums."

Such is the first charge brought against the Society of Apothecaries—a society, who have hitherto maintained a character, both as professional men, and as a commercial company, not only irreproachable, but, I had almost said, above suspicion.

It will naturally be expected, that so severe an accusation, as that which I have now recited, would have been supported by adequate evidence; but this is so far from being the case, that no shadow of proof whatever is adduced to substantiate it. It is well known, that prejudice, however unfounded, when once excited in the public mind, is frequently with difficulty removed. I should, therefore, think myself wanting in justice to the Society of Apothecaries, of which I have long had the honour to be a member, if I were to be silent upon an occasion, in which it is completely in my power to contradict such false and injurious statements; and I am satisfied that your candour will readily consent to insert this letter in your next Journal, that the refutation may be as extensively circulated as the charge has been.

Having been a member of the committee appointed to confer with the committee of the College of Physicians, for the purpose of reforming the Pharmacopœia Londinensis, I do most distinctly state and aver, that no reservation whatever was made on the part of the Committee of Apothecaries upon that occasion, but, on the contrary, they felt themselves bound by every sense of propriety, and of their duty to the public, to reply, to the best of their knowledge and ability, to all the questions put to them by the College; which questions were generally in writing, as were also the answers returned by the committee, and may, therefore, be easily referred to. At the frequent conferences which took place between the two committees, they made a point of giving every information in their power, that could tend to assist the purpose of improving a work, in which the welfare of the community was much interested; the satisfactory completion of which, I will venture to add, without fear of contradiction, both the College of Physicians and they had greatly at heart.

If any additional evidence should be esteemed necessary to confirm my assertion, relative to the cooperation of the society, it may be found in the following extract from the preface to the Specimen Pharmac. Novæ Colleg. Reg. Medic. Londin.

Under the head of processes, the College observe, " It is particularly incumbent upon the committee, to acknowledge the great advantage they have derived from the *liberal* communications of the Society of Apothecaries, with respect to the practice of their extensive concern. "

Let me here guard against an error, which the review writer appears to have fallen into, namely, that of imagining an equal degree of responsibility to be attached to the Society of Apothecaries in the formation of the Pharmacopœia, as to the College of Physicians. I have already explained the part which the Committee of Apothecaries took in the business. It must naturally be expected, that the College would reserve to themselves a final adjudication respecting the several articles, about which they thought it right to take the opinions of others; in consequence of which, while their judgment might direct them to adopt some of the suggestions offered to them, they would reject others; and, indeed, it was only in a portion, comparatively small, of the formulæ contained in the Pharmacopœia, that the committee were consulted.

Having thus endeavoured to repel the first charge brought against the Society of Apothecaries, I proceed to the second ground of accusation, which your reviewer calls the " worst of all, " and goes on to say, " Mr Phillips has proved that Apothecaries' Hall, from which every practitioner has a right to expect genuine medicines, prepared strictly according to the directions of the College, is in the habit of furnishing spurious and inferior articles. "

This is, undoubtedly, a very severe accusation; and, were it founded in truth, such conduct would justly deserve every epithet of reprehension which public indignation could impose. But that this accusation is not true, the decided opinion of the public in their favour, derived from long experience of the general excellence of the medicines prepared at Apothecaries' Hall, must be conclusive evidence. When it is considered that these medicines traverse the four quarters of the globe,—that the royal navy has been supplied with them for more than a century,—and also the various settlements under the East India Company's jurisdiction,—that a great proportion of those medical practitioners, who value themselves upon the superiority of their medicines, in all parts of the kingdom, both members of the Society, and men unconnected with it, give a preference to the same medicines,—that the preference of such men, who are themselves competent judges, is, in itself, an argument of great weight. When all these circumstances are duly considered, it must surely convince every unprejudiced mind, that nothing, but want of information upon the subject, can excuse the advancing such unfounded charges.

As the reviewer, however, has brought forward some evidence, which he considers as substantiating this accusation of furnishing spurious and inferior articles, it will be right to examine the nature and validity of his proofs.

He begins with the variations in specific gravity of several medicines prepared at Apothecaries' Hall, compared with the same articles as prepared by Mr Phillips.

In almost all the articles here brought forward, the variations are extremely small, much too minute to be of any consequence in a medicinal view.

When the College speaks of specific gravity, it must be understood only of a medium gravity, determined by the result of several experiments, and not as a fixed point, which will invariably occur in the product of every process, * even when conducted in a method precisely similar: add to which, that the smallest variation in temperature will so far disturb the result, as to render perfect exactness scarcely attainable; nor, if attainable, would it be of the smallest importance either to the physician or to the patient. I might here observe, that where specific gravity is not stated by the College as a test of the perfection of a medicine, an operator does not seem to be under an obligation to attend minutely to that circumstance. If he is satisfied that he has used the best materials, and has, in every other respect, strictly attended to the directions given, he does not appear liable to censure for any little variation in gravity.

The variation in specific gravity stated to exist in Liquor Ammoniæ, as prepared at Apothecaries' Hall, and in the same article, as prepared by Mr Phillips, is the only difference sufficiently important to merit particular attention. In order to receive an explanation of this circumstance, it must be recollected, that though it is admitted to be the bounden duty of the Society of Apothecaries, to provide every medicine directed in the New London

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* See the article, Acidum Aceticum, in Dr Powel's translation, where the specific gravity is stated to differ from 1.007 to 1.0095.

Pharmacopœia, they are by no means to be considered as precluded from keeping in their shop every former preparation, which the public, whether professional men or others, may think it right to employ. Such is the partiality frequently discovered in favour of remedies to which we have been long used, that it requires a great length of time to reconcile us to new medicines, notwithstanding they may be superior to the old ones, both in elegance and efficacy. Many instances might be adduced in proof of this:—To mention only one. The old Elixir paregoricum is still preferred by many to Tinctura opii camphorata of the former Pharmacopœia, and to the Tinctura camphoræ composita of the present. All the three articles are, therefore, now prepared at Apothecaries' Hall.

It will easily be conceived, that the difference in the strength of the Aqua ammoniæ puræ of the former Pharmacopœia, and the Liquor ammoniæ of the present, might induce many persons to prefer the former, which is considerably weaker than the latter, as more convenient for use in the division of doses. This has been actually the case; and though both of them are prepared for sale at the Hall, very little of the latter is called for, in comparison with the demand for the Aqua ammoniæ puræ, which was undoubtedly the article purchased by Mr Phillips; and the difference in the specific gravity of these two preparations, sufficiently accounts for the variations observed by him.

The preceding remarks upon the old and new preparations apply, if possible, more forcibly to the acetous solution of lead, of the former and present pharmacopœias. The colour and general appearance of the old and popular remedy of Goulard's extract are too well known to permit the modern Liquor plumbi acetatis, which is much paler in colour, satisfactorily to supply its place.

The Liquor ferri alkalini comes next under observation, to which Mr Phillips appears to have given a degree of attention, more proportional to its novelty as an article of medicine, than to its real importance.

It is not to be denied, that when this preparation was first made at Apothecaries' Hall, the proper mode of proceeding in it was not perfectly understood, and the composition, in consequence of this, was incorrect. It happened unfortunately, that a portion of this imperfect composition was procured by Mr Phillips, for the purpose of experiment, and the results were very probably such as he has stated in his publication. The error was, however, soon discovered, and immediately rectified. The preparation since made, is as perfect as possible, and answers correctly to the application of the several tests stated by Mr Phillips.

I the reviewer had given an additional extract from that writer, which tends to show the facility with which the directions for preparing this medicine may be misunderstood, it would have explained this circumstance more satisfactorily. The extract to which I refer is as follows.

> "Upon comparing these statements, it will be evident, that the solution procured at Apothecaries' Hall is an oxynitrate of iron, containing much nitric acid in excess; probably also some nitre. I have already stated that the alcali now ordered is more than requisite to saturate the acid, although not sufficient to dissolve the oxyde of iron; the medicine which I have just described must therefore have been prepared by increasing the quantity of acid, as advised by Dr Powell, omitting a proportional increase of alcali to saturate it: the solution of iron being then added to that of the alcali, until no further effervescence ensued."

The only remaining article requiring our notice, is Potassæ supersulphas, which is seldom, if ever, used medicinally. The quantity procured by Mr Phillips from Apothecaries' Hall seems to have been incorrectly prepared. This incorrectness probably arose from the difficulty which he himself has stated to attend the process, when conducted exactly in the manner directed by the pharmacopœia, and is applicable only to the salt procured at an early period after the first publication of that book. I have examined it as now made at the Society's Laboratory, and have reason to believe it perfectly accurate in its composition.

Having thus endeavoured to explain the causes of those variations in the chemical compositions noticed by Mr Phillips, from what he discovered in the same articles prepared by himself; variations, which if the same rigid investigation was pursued to detect them, would be, doubtless, found in preparations made at different periods of time, by every practical chemist; I have only to add, that being personally engaged in the management of that very important department of the business of the Society of Apothecaries, which relates to the purchasing of drugs, I can, from my own knowledge, assert, that the utmost attention is given, at all times, to procure the best articles that the market will afford, without any regard to superiority of price; and that, both in the chemical and galenical branches of that extensive establishment, every possible care is taken, by the daily inspection of the managers during the processes, that they shall be properly conducted; which inspection is repeated, previously to the medicine being exposed to sale, to ascertain that its quality is in every respect free from defect.

A writer, residing several hundred miles from the metropolis, must necessarily be unacquainted with these circumstances: but, though this ignorance may be considered as a very sufficient reason for instituting liberal inquiry and calm investigation, it can never be admitted an apology for indiscriminate censure, and unjust, because unfounded, condemnation.

I am, Sir, with great respect, your, &c.

HENRY FIELD.

Christ's Hospital, London, 21st Aug. 1812.

Extracts from a Letter to DR DUNCAN, Jun., *written by a Physician in London.*

1. *Of the Sudden and unexpected Deaths in the Acute Rheumatism.*

Probably every physician of long and extensive practice in this country, has had occurrences of death, in the acute rheumatism, after being in a state of delirium for a few hours, or sometimes instantly, without any symptoms of disease previously. In such cases of late, there has been found, on dissection, inflammation of the heart; and, however inexplicable the sudden death may be from this morbid state, still many persons are disposed to believe that there is some connexion between them; especially as, in some instances, the symptoms of affection of the heart does subsist for several days, or longer, before death. In the gout, sudden and unexpected deaths occur still oftener than in the rheumatism; but inflammation of the heart, perhaps, has not been noticed, which, however, is quite as likely to occur, and be the occasion of the fatal termination, as in the other disease. Inquiry by dissection is wanted to ascertain this point.

2. *Of different Kinds of Fen Miasmata.*

The marsh fevers and the disease of sheep called the rot, often prevailing at the same time, in the same kinds of wet land, Dr Harrison concluded, that the occasional cause was similar for both diseases. That this is not the truth, is proved by the absence of the disease of sheep in some of the most infested districts with fevers. The marsh of Chitney, near Rochester, is one of the best sheep-pastures in England; the rot never occurs in it; but it is really uninhabitable, on account of its producing intermittent and remittent fevers. This fact seems to show, that there are different kinds of miasmata in fens. Also, Dr Harrison has lately proved, that the *rot* is not occasioned by any kind of herb eaten by the animals, for they became diseased with the rot, although they were secured against the effects of grass food by muzzling them.

3. *Of the great Injury of the Brain, without Symptoms.*

It is true that a considerable suppuration of the brain with much water takes place, without disordering greatly any of the organs, viz. little increase of the circulation, no dyspnœa, no constipation of the bowels, no pain of the head, no failure of the appetite, nor delirium, till within a few days of dissolution. Dilatation of the pupils was observed for a few hours at times, during three weeks before death, but otherwise the sight was not affected.

4. *Erythema.*

A person has been uniformly affected with erythema of the face, during the last six or seven years, every time he opens a bottle containing the liquid nitro-muriate of platina, within two or three feet distance, and without touching the face. The same effect is produced by opening a bottle containing dry ammonia-oxide of platina. If the smallest particle of these substances be brought into contact with the face, even the fingers, though they be carefully wiped after touching these preparations, if they come in contact with the face, the erythema is excited. It spreads rapidly over the skin of the face, feeling very hot, itching extremely; of course, occasioning a pale rose-red colour. In two, three, or, at most, four hours, this slight disease disappears. Wetting the affected parts with cold water, frequently gives great relief, and especially with rectified spirit of wine.

5. *Of the Matter of Pulmonary Tubercles.*

This matter is certainly not glandular, as some great names have asserted, but it is as much out of the circulation as the urine itself, or any other secreted substance. It is coagulated lymph, at least it has many properties of that substance, as shown by chemistry. It is a secreted matter, excited by a great number of different diseases, analogous to the occasional causes of dropsy.

Medical Lectures in the University of Edinburgh.

Dietetics, Materia Medica, and Pharmacy - - - - -	Wednesday, Oct. 28.	8	Dr James Home.
Practice of Physic - -		9	Dr Gregory.
Chemistry & Chemical Pharmacy		10	Dr Hope.
Theory of Physic - - -		11	Dr Duncan, sen.
Anatomy and Surgery - -		1	Drs Monro.
Theory & Practice of Midwifery	Tu. Nov. 10. 3 o'clock.		Dr James Hamilton.

Military Surgery, Monday, Nov. 9, by Dr Thomson.
Medical Jurisprudence, Saturday, Nov. 14, by Dr Duncan, jun.
Natural History, Wednesday, Nov. 25, by Mr Jameson.

Clinical Lectures, on the Cases of Patients in the Royal Infirmary, by Dr Home and Dr Rutherford, Tuesday, November 10, at 4 o'clock afternoon.

Clinical Surgery by Mr Russell, on Monday, November 2, at 5 P. M.

Practical Anatomy, under the superintendance of Dr Monro, jun. who will also give a course of Morbid Anatomy.

During the Summer Session, Lectures will be given on the following Branches of Education.

Botany, by Dr Rutherford.
Midwifery, by Dr Hamilton.
Clinical Lectures on Medicine, by Dr Duncan, sen.
——————— on Surgery, by Mr Russell.

On the 24th of June, the Senatus Academicus of the University of Edinburgh conferred the degree of Doctor in Medicine on the following gentlemen, after having gone through the appointed examinations, and publicly defended their respective inaugural dissertations.

From England.

James Barry,	*De Merocele.*
Henry Stephens Belcombe,	*De Febre Hectica.*
Andrew Boutflower,	*De Vulneribus Prælio inflictis.*
John Churton,	*De Sanguine Mittendo.*
Joseph Collier Cockworthy,	*De Hepate, ejusque viribus in Valetudine tuenda et Morbis curandis.*
John Dick,	*De Ossium Absorbentis.*
Marshall Hall,	*De Febribus Inordinatis.*
Jonathan Mercer M'Culloch,	*De Malis Icto Capite exortis.*
George Wallis,	*De Motu Musculorum.*
Francis Whaley,	*De Febribus.*
Richard Williams,	*De Fluxu Hæmorrhoidali.*

From Wales.

Francis James Hughes,	*De Calcis Usu in Agricultura.*
James C. Jones,	*De Angina Pectoris.*

From Ireland.

William John Bell,	*De Typho.*
William Campion,	*De Tetano.*
James F. Carrol,	*De Fabrica et Functionibus Pulmonum.*
Henry Clements,	*De Apoplexia.*
Samuel Forbes Crawford,	*De Scarlatina.*
John Foley,	*De Diabete.*

Victor Herview,	*De Tetano.*
Henry Irwin,	*De Vulneribus Sclopiticis.*
Samuel Lindsay,	*De Senectute.*
Thomas Putnam M'Cabe,	*De Rubeola.*
William Ryan,	*De Quarundam Arteriarum in Corpore Humano Distributione.*
Thomas Charlton Speer,	*De Natura Aquæ.*

From SCOTLAND.

George Barclay,	*De Erysipelate.*
William Bell,	*De Dysenteria.*
Alexander Hannay,	*De Apoplexia Sanguinea.*
Richard Kellet,	*De Pneumonia.*
Neil Maxwell,	*De Hepatitide.*
John Robertson,	*De Usu et Effectibus Arsenici.*
William Robertson,	*De Dysenteria.*
Robert Sanders,	*De Angina Pectoris.*
David Scott,	*De Genere Mucoso.*
John Smith,	*De Utilitate Morborum Naturam Cadaveribus Sectis explorandi.*
James Watson,	*De Hydrothorace.*
John William Watson,	*De Dyspepsia.*
James Weir,	*De Angina Pectoris.*

From JAMAICA.

Colin Campbell,	*De Ictero.*

From BERMUDAS.

Augustus E. Dalzell,	*De Vestitu Laneo.*

From ST CROIX.

James Carden,	*De Rubeola.*
Andrew Kennedy,	*De Hydrophobia.*

From EAST INDIES.

William Bruce,	*De Phthisi Pulmonali.*
James Mouat,	*De Inflammatione.*

From MADEIRA.

Nicholas C. Pitta,	*De Cœli Effectu in Genus Humanum.*

And, on the 12th of September, the same honour was conferred on the following Gentlemen.

From ENGLAND.

John Pickering,	*De Febre Valacriensi.*
John Wardell,	*De Scarlatina.*

From IRELAND.

Richard Grattan,	*De Hepate et Bilis Secretione.*
John Morrison,	*De Typho Icterode.*
Hubert Prendergast,	*De Apoplexia.*
William Young,	*De Phthisi Pulmonali.*

From Scotland.

Alexander Aitken,	*De Typho Graviore.*
William Bowie,	*De Asthmate.*
Robert Renwick,	*De Hydrothorace.*
Richard Sinnot,	*De Chorea.*
George Waddel,	*De Febre Intermittente.*

From St Croix.

John Leslie Hunt,	*De Intemperantia, et præsertim de Ebrietate.*

From Brazil.

Marciano Pereira Ribeiro,	*De Natura Creatrice quam Destructrice Rerum.*

Queries in regard to the comparative Quantities of Nourishment afforded by different Substances.

The following queries, which have a reference to a scale of nutriment, contained in a communication presented by Mr Pitt of Birmingham to the Board of Agriculture, were transmitted by the Right Honourable President, to the Editor, who hopes, by inserting them in this Journal, to procure the important object to which they are directed.

It would be very desirable to form some idea of the relative value of the various articles of human food, produced from arable and grass lands, in point of nutriment, making good wheaten bread the standard, and dividing it into a hundred parts, the scale to be both upwards and downwards; and for that purpose to procure as satisfactory answers as possible, to the following queries.

1. What is the difference, in point of nutriment, between a pound of good wheaten bread, and a pound of average beef—pork—mutton—veal?

2. Is it a fair calculation, that one pound of good butcher meat, is, on an average, equal to two pounds of good wheaten bread?

3. Do you think that two pounds of fresh milk are equal, as food for man, to one pound of wheaten bread?

4. Is cheese of good quality equal, in point of nutriment, to butcher meat?

5. Is butter twice as nutritive as meat?

6. When wheat weighs 60 lib. per bushel, does it produce only 48 lib. of flour, and 12 lib. of bran and pollard; and will the 48 lib. of flour, when baked, produce 60 lib. of bread?

7. Is one pound of good ale equal in nourishment to half a pound of bread?

8. What is the difference between barley and wheat, in point of nutriment?

9. What between wheat and oats?

10. What is the difference, in point of nutriment, between wheaten flour, and pease meal, or bean meal?

11. Is the calculation right, that 3½ lib. of potatoes is equal to 1 lib. of bread?

Letter from the Right Hon. Sir John Sinclair, *Bart. to the President of the College of Physicians at Edinburgh, on the Remedy lately discovered for Calculous Complaints.*

SIR,—I am persuaded that you will concur with me in opinion, that there are no complaints, incident to mankind, for which it is more desirable to discover a cure, or even a safe and effectual means of preventing, than those of a calculous nature. The miseries felt by those who are afflicted with the stone or gravel, are dreadful beyond description; and any cure effected by surgical operation is not only of a nature peculiarly severe, and often fatal, but does not always prevent a repetition of the complaint. It is with much pleasure, therefore, that I call the attention of the respectable Body over whom you preside, to the means which have been recently discovered, by which calculous complaints may, there is every reason to hope, be prevented from proving, in future, so formidable a source of human misery.

The paper, printed in the Philosophical Transactions, An. 1810, entitled, "Observations on the Effects of Magnesia in preventing an increased formation of the Uric Acid," written by Mr William T. Brande, is the first suggestion, so far as my information reaches, that has been published, recommending magnesia as an antidote to the formation of stone or gravel.

The inquiries of that eminent surgeon, Mr Home, into the functions of the stomach, and his discovery that liquids pass from the cardiac portion, into the circulation of the blood, (Philosophical Transactions, April 1808), led him to consider, that the generality of calculous complaints might possibly be prevented, by introducing into the stomach, such substances as are capable of preventing the formation of uric acid; and that this mode of treatment would have many advantages over the usual method, which consists in attempting to dissolve the uric acid after it is formed.

He consulted, it would appear, Mr Hatchett, on the substance most likely to produce this effect; and that respectable chemist concurred with him in opinion, that magnesia, from its insolubility in water, was peculiarly well adapted for the purpose, as it would remain in the stomach, until it should combine with any acid, or be carried along with the food to the pylorus.

These gentlemen, anxious to have a complete investigation of a subject so peculiarly interesting, requested Mr Brande to assist them in the prosecution of it; and many opportunities having occurred of carrying on the inquiry, during an attendance on patients afflicted with calculous complaints, the results of their joint labours were communicated to the Royal Society in the important paper I have alluded to, which is earnestly recommended to the consideration of every medical person, who may have patients afflicted with such complaints under his care.

As calculous matters are not uniformly of the same description, it is certainly desirable to ascertain, by the assistance of some medical person, the specific nature of the complaint with which any individual is afflicted; but being anxious that those who are at a distance from medical aid, or who cannot perhaps afford to procure it, should be able to avail themselves of this new discovery, I took the liberty of applying to Mr Brande for a short statement of the manner in which the remedy ought in general to be applied; and he, with that liberality which belongs to true genius, has furnished me with the following particulars.

"The best method of giving the magnesia is in plain water, or milk, to be taken in the morning early, and at mid-day. If the stomach is weak, and this produces flatulency, or uneasy sensations, some common bitter, such as gentian, may be taken with it:—if it purges, a little opium may be added.

"The mode in which magnesia operates in preventing the formation of stone or gravel, Mr Brande believes to be, by preventing the formation of acid in the stomach.

"Where there is a stone actually formed in the bladder, it is of advantage, (if the case is a proper one for the use of magnesia), by preventing the increasing in size.

"The dose of magnesia must entirely depend upon the circumstances of its case—*generally*, five grains, twice or thrice a day, to children below ten years of age; fifteen and twenty grains to adults.

"Mr Brande has always given common magnesia. The calcined may occasionally be used with advantage. Any omission of the remedy for a time must entirely depend on the state of the patient.

"In regard to diet, no particular regimen is necessary. Animal food may be taken in the same quantities, and of the same sorts as usual. The patient should avoid strong wines, such as Port and Madeira, and indeed should abstain from pure wine altogether. Spirits should not be taken in any form. Lemons and vinegar need not be absolutely avoided, unless the bowels are too open. Oranges and other fruits, when ripe, may be taken."

There is every reason to hope, from the success that has already attended the application of this remedy in various cases, that it may prove an effectual means of preventing the greatest proportion of calculous complaints; and it is impossible to foresee, to what a state of improvement it may yet be brought, in the course of further experience, when the attention of a number of able and learned men (as I trust will be the case) is directed to its application.

Perhaps there is no disorder to which mankind is liable, for which nature has not provided some remedy, or at least some means of alleviation, though, in both respects, much remains to be learnt; and any discovery that can be serviceable in calculous complaints, from the infinite distress they occasion, must prove, in a peculiar manner, gratifying to every real friend to the happiness of the human race.—I have the honour to be, Sir,

Your humble and obedient Servant,

JOHN SINCLAIR.

27. Old Burlington Street, 7th May, 1812.

St George's Hospital, *and Great George Street, Hanover Square.*—In the first week of October will commence a course of Lectures on the Practice of Physic, Therapeutics, and Chemistry, in the Lecture Room, No. 9, Great George Street, Hanover Square (removed from Leicester Square), at the usual morning hours, viz. The medical lectures at eight, and the chemical at a quarter after nine o'clock; by George Pearson, M. D. F. R. S. senior physician of St George's Hospital, of the Royal College of Physicians, &c. A register is kept of Dr Pearson's Cases in St George's Hospital, and an account is given of them every Saturday morning, at a clinical lecture, at nine o'clock.

London Hospital.

Dr Buxton's autumnal course of Lectures on the Practice of Medicine, will be commenced on Thursday morning, 1st October, at 11 o'clock.

Dr Clough will commence, early in October next, his Autumnal Course of Lectures on the Science of Midwifery, including the Diseases of Women and Infants, at his house, No. 68, Bond Street, London. Students who are properly qualified, will be amply provided with cases to attend in rotation, which are governed by the number of Patients admitted to his Institution. Their views also will be greatly forwarded by Weekly Examinations of the preceding Lectures, timely notice of which will be given in most of the Morning and Evening Papers.

Dr Merriman, Physician-Accoucheur to the Middlesex Hospital, and the Westminster General Dispensary, will begin a Course of Lectures on the Theory and Practice of Midwifery, and the Diseases of Women and Children, on Monday, October 12th, at the Middlesex Hospital.

The Royal College of Surgeons in London have adjudged the Jacksonian Prize for the year 1811, to Mr Joseph Hodgson of Bucklersbury, London, for his Dissertation on the Diseases of Arteries and Veins, comprising the Treatment of Aneurisms and Wounded Arteries.

Communications from Mr Fogo and Mr Pring, and an anonymous one from Paisley, were received too late for insertion in the present Number; also a Letter from Mr Wilkins of Ferrybridge, to whom the Editors return their thanks for his admonitions.

, Communications may be addressed to the Editors, to the care of Messrs Constable & Co. Edinburgh; Messrs Longman, Hurst, Rees, Orme & Brown, London; and Gilbert & Hodges, Dublin.

No. XXXIII. will be published on the 1st *of January* 1813.

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